Depth	Matrix			Redo	x Feature	es			
(inches)	Color (moist)	%	Col	or (moist)	_ %	Type'	_Loc2	Texture	Remarks
0 - 6	10 YR 4/1	95	10 YR 4	/6	5	RM	М	clay loam	
9+	10YR 4/1	90	10 YR 4	1/6	16	RM	M	clay loam	
	18/11/31		10 1390	7-	-	- 1000	-101		
	_				-	-		-	
	-	-				<u> </u>			
					_	_	_	-	-
							_	9,,	
	oncentration, D=Dep						ains.		PL=Pore Lining, M=Matrix.
	Indicators: (Applic	able to all I	-						s for Problematic Hydric Soils ³ ;
Histosol			100000	Polyvalue Be					Muck (A9) (LRR O)
Histic Epipedon (A2) Black Histic (A3)			_	Thin Dark Su	A 144 (1 1 4 1)				Muck (A10) (LRR S)
				Loamy Muck			(0)		ced Vertic (F18) (outside MLRA 150A,
	en Sulfide (A4) d Layers (A5)			Loamy Gleye Depleted Ma		(FZ)		ACCOUNT OF THE PARTY OF	nont Floodplain Soils (F19) (LRR P, S, T alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	TIL		Redox Dark		E6)			RA 153B)
	icky Mineral (A7) (LI	We will be a second		Depleted Dar					Parent Material (TF2)
	esence (A8) (LRR L		H	Redox Depre					Shallow Dark Surface (TF12)
	ick (A9) (LRR P, T)	-/	_	Marl (F10) (L		٠,			(Explain in Remarks)
	d Below Dark Surfac	e (A11)		Depleted Oc		(MLRA 1	51)	_	(angular in transmiss)
	ark Surface (A12)			Iron-Mangan				T) ³ Indi	cators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (I	MLRA 150A	200	Umbric Surfa					tland hydrology must be present,
Sandy N	Mucky Mineral (S1) (LRR O, S)		Delta Ochric				uni	less disturbed or problematic.
☐ Sandy G	Gleyed Matrix (S4)	And L		Reduced Ver	rtic (F18)	(MLRA 15	0A, 150B)	
Sandy F	Redox (S5)			Piedmont Flo	oodplain :	Soils (F19)	(MLRA 1	49A)	
☐ Stripped	Matrix (S6)			Anomalous E	Bright Loa	my Soils (F20) (MLF	RA 149A, 1530	C, 153D)
		S. T. U)							
Dark Su	rface (S7) (LRR P, \$								
Dark Su	riace (S7) (LRR P, 3 Layer (if observed)								
Dark Su									
Dark Su	Layer (if observed)							Hydric Soi	I Present? Yes X No
Dark Su Restrictive Type:	Layer (if observed)							Hydric Soi	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Soi	I Present? Yes X No No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Soi	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	l Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Soi	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	l Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	Present? Yes X No
Dark Su Restrictive Type: Depth (in	Layer (if observed)							Hydric Sol	I Present? Yes X No

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Cham	bers County	Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LLC		State: Texas	Sampling Point: DP761
Investigator(s): Lee Sherrod and Tony Vazquez	_ Section, Township,	Range:	
Landform (hillslope, terrace, etc.):levee slope	Local relief (concav	e, convex, none): Convex	Slope (%): 0 - 1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.7	47470°	Long: -94.373353°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, r		NWI classif	fication: None
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil, or Hydrology significant Are Vegetation, Soil, or Hydrology naturally particles of the property of the site of the	tly disturbed? A problematic? (I	re "Normal Circumstances" f needed, explain any answ	present? Yes No
Hydrophytic Vegetation Present? Yes X No X Hydric Soil Present? Yes No X No X Remarks:	Is the Samp within a We		No X
Sediment Deposits (B2)	a13) 15) (LRR U) codor (C1) cheres along Living Rouced Iron (C4) uction in Tilled Soils (Coe (C7)	Surface So Sparsely V. Drainage P Moss Trim Dry-Seasor Crayfish Bu Saturation Geomorphi Shallow Aq	cators (minimum of two required) iil Cracks (B6) egetated Concave Surface (B8) atterns (B10) Lines (B16) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) c Position (D2) uutard (D3) at Test (D5)
Water-Stained Leaves (B9)		party.	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No Depth (inche Water Table Present? Yes No Depth (inche Saturation Present? Yes No Depth (inche Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	es):	Wetland Hydrology Prese	ent? Yes No X
Remarks:			

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		Indicator	
	Species?	Status FACU	Number of Dominant Species
20	Yes	$\overline{}$	That Are OBL, FACW, or FAC:4 (A)
		TAC	Total Number of Dominant
			Species Across All Strata: (B)
	-		Percent of Dominant Species
		_	That Are OBL, FACW, or FAC: 80% (A/E
	-	-	Prevalence Index worksheet:
	·	_	Total % Cover of: Multiply by:
-	200 00 100	-	OBL species x 1 =
1 2 2 7 7			FACW species x 2 =
20% of	total cover	6%	FAC species x 3 =
			FACU species x 4 =
$\overline{}$	-	-	UPL species x 5 =
			Column Totals: 0 (A) (B
-	No		(A)
10	No	FAC	Prevalence Index = B/A =
		2	Hydrophytic Vegetation Indicators:
	-	8	1 - Rapid Test for Hydrophytic Vegetation
	-		2 - Dominance Test is >50%
	-		☐ 3 - Prevalence Index is ≤3.01
95%	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
20% of	total cover	19%	_
			Indicators of hydric soil and wetland hydrology must
30	Yes	FAC	be present, unless disturbed or problematic.
5	No	FACW	Definitions of Four Vegetation Strata:
5	No No	FACW	
5	$\overline{}$	$\overline{}$	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
5	No	$\overline{}$	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
5	No	$\overline{}$	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight.
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight.
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) imore in diameter at breast height (DBH), regardless cheight. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is more in diameter at breast height (DBH), regardless cheight. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) in more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
40%	= Total Cover	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5 40% 20% of	= Total Cover	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5 40% 20% of	= Total Cover	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
4096 :	= Total Cover	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapting/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
	30% 20% of 20 40 15 10 25% of 20% of 20% of	30% = Total Cov 20% of total cover 30	30% = Total Cover 20% of total cover; 6% 20

Decilia Decoriations / Secolla to the second					Sampling Point: DP761	
Profile Description: (Describe to the depti	needed to doci	iment the Indicator	or confirm	the absence		
Depth Matrix	Rec	lox Features				
(inches) Color (moist) %	Color (moist)	% Type	Loc2	Texture	Remarks	
0 = 24 10YR 2/2 100			1	Clay loam	No redox	
			-	_		
			-	_		
		<u> </u>	1			
		·	-	_	-	
Type: C=Concentration, D=Depletion, RM=			ains.		PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all L	RRs, unless oth	erwise noted.)		Indicators	for Problematic Hydric Soils ³ ;	
Histosol (A1)	☐ Polyvalue B	Below Surface (S8) (I	LRR S, T, U)	☐ 1 cm l	Muck (A9) (LRR O)	
Histic Epipedon (A2)	☐ Thin Dark S	Surface (S9) (LRR S,	T, U)	☐ 2 cm M	Muck (A10) (LRR S)	
Black Histic (A3)	☐ Loamy Mud	ky Mineral (F1) (LRI	R (O)	Reduc	ed Vertic (F18) (outside MLRA 150A, E	
Hydrogen Sulfide (A4)	Loamy Gle	yed Matrix (F2)		☐ Piedmont Floodplain Soils (F19) (LRR P, S, T☐ Anomalous Bright Loamy Solls (F20)		
Stratified Layers (A5)	☐ Depleted M					
Organic Bodies (A6) (LRR P, T, U)	The state of the s	Surface (F6)			RA 153B)	
5 cm Mucky Mineral (A7) (LRR P, T, U)		ark Surface (F7)			arent Material (TF2)	
Muck Presence (A8) (LRR U)		ressions (F8)			Shallow Dark Surface (TF12)	
1 cm Muck (A9) (LRR P, T)	Marl (F10)	Man Mary and A. Real and the State of the		U Other	(Explain in Remarks)	
Depleted Below Dark Surface (A11)		chric (F11) (MLRA 1		- Si	of the debugger of the second of the second	
☐ Thick Dark Surface (A12) ☐ Coast Prairie Redox (A16) (MLRA 150A)		nese Masses (F12)			cators of hydrophytic vegetation and	
Sandy Mucky Mineral (S1) (LRR O, S)		face (F13) (LRR P, 1 c (F17) (MLRA 151)			tland hydrology must be present, ess disturbed or problematic.	
Sandy Gleyed Matrix (S4)		ertic (F18) (MLRA 131)		uni	ess distribed of problematic.	
Sandy Redox (S5)		loodplain Soils (F19)		A		
Stripped Matrix (S6)	The second secon	Bright Loamy Soils			. 153D)	
Dark Surface (S7) (LRR P, S, T, U)	- Constitution		(as) for each	, vo. 110 k. 1 1 1 1 1	,	
Restrictive Layer (if observed):						
Type:			- 7			
Depth (inches):	=		- 0	Hydric Soil	Present? Yes No X	
			-	riyano con	Present: 102 tto	
Remarks:						

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Cham	bers County	Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL		State: Texas	Sampling Point: DP764
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township,	Range:	
Landform (hillslope, terrace, etc.): flood plain	Local relief (concav	e, convex, none): flat	Slope (%): 0
		Long: -94.375774°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes			sification: None
Are climatic / hydrologic conditions on the site typical for this time of		o (If no, explain i	
Are Vegetation, Soil, or Hydrology significa	intly disturbed?	re "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic? (I	f needed, explain any ans	swers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling poir	nt locations, transec	cts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X No	Is the Samp		X No
Remarks:	-		
HYDROLOGY			
Wetland Hydrology Indicators:			dicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	oly)	Surface S	Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna		The second secon	Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (Patterns (B10)
Saturation (A3) Hydrogen Sulfin			n Lines (B16)
[spheres along Living Ro		on Water Table (C2)
	educed Iron (C4)		Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Re ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surf	duction in Tilled Soils (C		n Visible on Aerial Imagery (C9) hic Position (D2)
Iron Deposits (B5) Other (Explain	Cold Cold Cold Cold Cold Cold Cold Cold	The second secon	Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	in ricitizatio)		tral Test (D5)
Water-Stained Leaves (B9)		The state of the s	m moss (D8) (LRR T, U)
Field Observations:			TOTAL MATERIAL STATE
Surface Water Present? Yes X No Depth (inc			
Water Table Present? Yes X No Depth (inc	hes): Surfacce		
Saturation Present? Yes X No Depth (inc (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial p	hes): Surface	Wetland Hydrology Pre	sent? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aenai p	notos, previous inspecti	ons), ii avallable.	
Remarks:			
7-1-11-11-11			

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		Dominant		Dominance Test worksheet:
ree Stratum (Plot size:)		Species?		Number of Dominant Species
Fraxinus pennsylvanica	30	Yes	FACW	That Are OBL, FACW, or FAC:5 (A)
Triadica sebifera	10	No	FAC	Total Number of Dominant
Celtis laevigata	20	Yes	FAC	Species Across All Strata: 5 (B)
n.		_	25	Percent of Dominant Species
			-	That Are OBL, FACW, or FAC: 100% (A/
·		-		
<u></u>			-	Prevalence Index worksheet:
		8.	-	Total % Cover of:Multiply by:
	60%	= Total Cov	er	OBL species x 1 =
50% of total cover: 30%	-			FACW species x 2 =
apling/Shrub Stratum (Plot size:)		19000 (0.9) 01		FAC species x 3 =
Mortila centera	20	Yes	FAC	FACU species x 4 =
	AF.	Yes	FAC	UPL species x 5 =
	-			Column Totals:0 (A)0 (E
-		_	_	
				Prevalence Index = B/A =3.4
-	_		\leftarrow	Hydrophytic Vegetation Indicators:
		-		1 - Rapid Test for Hydrophytic Vegetation
	-	-		2 - Dominance Test is >50%
		-	2	3 - Prevalence Index is ≤3.01
	35%	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
00.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
1/2				Woody vine - All woody vines greater than 3.28 ft in height.
2.	_	3	4	
Y-	0%	= Total Cov	er	
50% of total cover:0%				
	20 70 01	total cover		
Voody Vine Stratum (Plot size:) Rubus suus	85	Own	FAC	
			17/10	
			-	1
·			—	1
k				
O _F				Hydrophytic
	85%	= Total Cov	er	Vegetation
50% of total cover: 43%	20% of	total cover	1796	Present? Yes X No
Remarks: (If observed, list morphological adaptations belo				

SOIL		Sampling Point: DP764
Profile Description: (Describe to the depth	needed to document the indicator or confirm	
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
0 = 24 10YR 2/2 100		Clay loam
		
¹ Type: C=Concentration, D=Depletion, RM=F	Paduced Matrix MS-Macked Sand Crains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L		Indicators for Problematic Hydric Soils ³ ;
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U)	
Histosol (A1) Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	######################################	Reduced Vertic (F18) (outside MLRA 150A,B
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
		Red Parent Material (TF2)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)	☐ Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR D)	Mari (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P,	T) Sindicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)		wetland hydrology must be present.
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	unless distribed of problematic.
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 145	9Δ1
Stripped Matrix (S6)	☐ Anomalous Bright Loamy Soils (F20) (MLRA	
Dark Surface (S7) (LRR P, S, T, U)	Michigan Bright Edutify Colls (1 20) (MEXX)	1400, 1000, 1000)
Restrictive Layer (if observed):		
Type:		
	=/ \ \	Hald Sall Barrens Van XI Na I
Depth (inches):		Hydric Soil Present? Yes X No
Remarks:		

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Chambers County	Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LLC	State: Texas	Sampling Point; DP765
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township, Range:	
Landform (hillslope, terrace, etc.): flood plain	Local relief (concave, convex, none): flat	Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.7		Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, ra	arely flooded NWI class	ification: None
Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation, Soil, or Hydrology significant! Are Vegetation, Soil, or Hydrology naturally p SUMMARY OF FINDINGS – Attach site map showin	ly disturbed? Are "Normal Circumstance or oblematic? (If needed, explain any ans	s" present? Yes No wers in Remarks.)
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No No Remarks:	Is the Sampled Area within a Wetland? Yes	X No
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Inc	icators (minimum of two required)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Drainage Drainage	Vegetated Concave Surface (B8) Patterns (B10) In Lines (B16) In Water Table (C2) Surrows (C8) I Visible on Aerial Imagery (C9) Inic Position (D2) quitard (D3) Iral Test (D5) In moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No Depth (inche Vater Table Present? Yes No Depth (inche Saturation Present? Yes No Depth (inche (includes capillary fringe)) Describe Recorded Data (stream gauge, monitoring well, aerial pho	ss): 4 wetland Hydrology Pres	sent? Yes X No
Remarks:		
Water marks 4"		

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	Species? Yes Yes Yes	Status	
	Yes		Number of Dominant Species
	_	FAC	That Are OBL, FACW, or FAC: 6 (A)
	Yes	FAC	Total Number of Dominant
		FACW	Species Across All Strata:8 (B)
	E	PI	
		-	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A)
	-		That Ac OBE, I AGIV, OF I AG.
	-	-	Prevalence Index worksheet:
_	-		Total % Cover of: Multiply by:
	Total Cove	70.	OBL species x 1 =
			FACW species x 2 =
1% Of t	.otai cover:	10.40	FAC species x 3 =
			FACU species x 4 =
-	-		UPL species x 5 =
	Yes	FAC	Column Totals: 0 (A) (E
<u>.</u> .	-	9.	Column rotals: (A) (t
	-	4	Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
	-	8	1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
		_	
			☐ 3 - Prevalence Index is ≤3,0 ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height.
	3	4	
	Total Cove	er	
)% of t	total cover:	0%	
		FAC	
	Yes		
=	-	-	
=			
		-	Hydrophytic
		-	Hydrophytic Vegetation Present? Yes X No
	90% of t	9% of total cover: Yes Yes Total Cover: Total Cover:	yes FAC Yes FAC Yes FAC Yes FAC Yes FAC

Double Mobile	III Heedi	ed to docu	ment the	Indicator	or confir	m the ab	sence	of Indicators.)
Depth Matrix			x Feature					
(inches) Color (moist) %	Color	(moist)	%	Type	Loc	Tex	ture	Remarks
2-24 10YR 3/2 95	10YR 6/1		. 5	C	М	Clayloa	m	
				4				
			_	_				
	_				_	-	_	
				é		-		C
				i a				
			_	_			_	A
	_					-	_	
					-			
Type: C=Concentration, D=Depletion, RM=	=Reduce	d Matrix. M	S=Maske	d Sand Gr	ains.	² Lo	cation:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all					san turi			for Problematic Hydric Soils ³ :
☐ Histosol (A1)	-	olyvalue Be			DD C T			Muck (A9) (LRR O)
Histic Epipedon (A2)		hin Dark Si						Muck (A10) (LRR S)
Black Histic (A3)		oamy Muck				H		ed Vertic (F18) (outside MLRA 150A,E
Hydrogen Sulfide (A4)		oamy Gley	The second second		. 01	금		ont Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5)		epleted Ma		(1-2)		금		alous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	-	ledox Dark		ERV		ш		RA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)		epleted Da						arent Material (TF2)
Muck Presence (A8) (LRR U)		ledox Depr				H		Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)		farl (F10) (I		0)		H		(Explain in Remarks)
		epleted Oc		AND DA 4	641		Other	(Explain in Remarks)
						-	Shadia	set are of budeaubidic translation and
Thick Dark Surface (A12)		on-Mangar				, 11		cators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 1504		Imbric Surfa			, 0)			tland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)		elta Ochric			04 4500		uni	ess disturbed or problematic.
Sandy Gleyed Matrix (S4)		educed Ve						
Sandy Redox (S5)		ledmont Fl					****	drami
Stripped Matrix (S6)	П	nomalous I	Bright Loa	my Soils i	F20) (IVI L	KA 149A	, 1030	, 1530)
Dark Surface (S7) (LRR P, S, T, U)						-		
Restrictive Layer (if observed):						1		
The second section of								
Type:							de Call	Present? Yes X No
						Hydr	16 2011	Present? res No
Type:						Hydr	10 3011	Present? Yes X No
Type:						Hydr	16 2011	Fresent? Yes No
Type:						Hydr	16 2011	Present? Yes No
Type:						Hydr	10 3011	Present? Tes No
Type:	Ξ.					Hydr	16 2011	Present? Tes Au Nu
Type:						Hydr	16 2011	Fresent? Tes Au III
Type:						Hydr	16 3011	Present? Tes Au Nu
Type:						Hydr	16 3011	Present? Tes Au Nu
Type:						Hydr	16 2011	Present? Tes Au Nu
Type:						Hydr	16 2011	Present? Tes Au III
Type:						Hydr	16 3011	Present? Tes Au III
Type:						Hydr	16 3011	Present? Tes Au
Type:						Hydr	16 3011	Fresent? Tes Au
Type:						Hydr	10 3011	Present? Tes Au
Type:	=					Hydr	16 2011	Present? Tes Au
Type:						Hydr	16 2011	Present? Tes Au
Type:	=					Hydr	16 2011	Fresent? Tes Au
Type:						Hydr	16 2011	Fresent? Tes Au
Type:						Hydr	16 2011	Fresent? Tes Au
Type:						Hydr	16 2011	Fresent? Tes Au
Type:						Hydr	10 3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au
Type:						Hydr	16.3011	Fresent? Tes Au

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Chambers	County	Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL		State: Texas	Sampling Point: DP766
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township, Ran	ge:	777 307 104 6
Landform (hillslope, terrace, etc.): flood plain	Local relief (concave, co	nvex, none): flat	Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29	.751422° Le	ong: -94.375756°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes,			ification: None
Are climatic / hydrologic conditions on the site typical for this time o		(If no, explain in	
Are Vegetation, Soil, or Hydrology significal	ntly disturbed? Are "N	lormal Circumstances	s" present? Yes X No
		eded, explain any ans	
SUMMARY OF FINDINGS – Attach site map show	ing sampling point lo	cations, transec	ts, important features, etc
Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present? Yes X No Yes X No	Is the Sampled a		X No
Remarks:	-		
HYDROLOGY Wetland Hydrology Indicators:		Sanahani lua	licators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	NO.		oil Cracks (B6)
Surface Water (A1) Aquatic Fauna	The same of the sa		Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (I			Patterns (B10)
Saturation (A3) Hydrogen Sulfic			Lines (B16)
	spheres along Living Roots		on Water Table (C2)
Sediment Deposits (B2)	duced Iron (C4)	Crayfish E	Burrows (C8)
3 1 1.5 12.5 12.5 20.1 20.1 20.1 20.1 20.1 20.1 20.1 20.1	duction in Tilled Soils (C6)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa			nic Position (D2)
Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7)	n Remarks)		quitard (D3) ral Test (D5)
Water-Stained Leaves (B9)		The second secon	n moss (D8) (LRR T, U)
Field Observations:		- opingana	(
Surface Water Present? Yes No X Depth (incl	nes);		
Water Table Present? Yes X No Depth (incl	nes): _6		THE WATER TO STATE
(includes capillary fringe)		land Hydrology Pres	sent? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	notos, previous inspections).	if available:	
Remarks:			
remains.			

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A STANDARD A BUILDING		Dominant		Dominance Test worksheet:
		Species?		Number of Dominant Species
Triadica sebifera	30	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Acer rubrum	10	No	FAC	Total Number of Dominant
3. Fraxinus pennsyvania	55	Yes	FACW	Species Across All Strata:4 (B)
4, Ulmus americana	5	No	FAC	Beauty (Decision of Beauty)
5. Quacus virginiana	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/
6		-		marve obe, more, or more
7			-	Prevalence Index worksheet:
		-		Total % Cover of: Multiply by:
		= Total Cov	26.	OBL species x 1 =
				FACW species x 2 =
50% of total cover:53%	_ 20% of	total cover	2190	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
1. Morella cerifera	10	Yes	FAC	Control of the Contro
2			-	UPL species x 5 = Column Totals:0 (A)(E
3		-	× -	Column Totals: (A) (E
4			3	Prevalence Index = B/A =
5,			-	Hydrophytic Vegetation Indicators:
6		-	8	
7				1 - Rapid Test for Hydrophytic Vegetation
			_	2 - Dominance Test is >50%
8		= Total Cov		☐ 3 - Prevalence Index is ≤3,0 ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
2				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
	0%	= Total Cov	er	
50% of total cover:0%	_ 20% of	total cover	0%	
Woody Vine Stratum (Plot size:)				
1. Rubus suus	95	Yes	FAC	
2.			-	
3			7	
4			_	
			-	W. Walter
5,	0.500	-	_	Hydrophytic
	95%	= Total Cov	er	Present? Yes X No
50% of total cover: 48%	_ 20% of	total cover.	19%	FIESERE TES TO THE
50% of total cover: 48% Remarks: (If observed, list morphological adaptations below		total cover.	19%	

SOIL				Sampling Point: DP766
Profile Description: (Describe to the dep	h needed to document	the indicator or confirm	the absence of in	
Depth Matrix	Redox Fea			
(inches) Color (moist) %	Color (moist)	% Type Loc2	Texture	Remarks
2-24 10YR 3/2 90	10YR 5/2 10	G M	Clay loam	
		بے نے سٹ س	عاريد عن	
				The second second
Type: C=Concentration, D=Depletion, RM=				Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise	noted.)	Indicators for F	Problematic Hydric Soils ³ ;
Histosol (A1)		Surface (S8) (LRR S, T, L		
Histic Epipedon (A2)	☐ Thin Dark Surface		2 cm Muck	
Black Histic (A3)	Loamy Mucky Mir			ertic (F18) (outside MLRA 150A,
Hydrogen Sulfide (A4)	Loamy Gleyed Ma			loodplain Soils (F19) (LRR P, S, 7
Stratified Layers (A5)	Depleted Matrix (Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surfa		(MLRA 15	The Name of State of
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark Su		Red Parent	
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T)	Redox Depression Marl (F10) (LRR I	4 - 20		w Dark Surface (TF12) ain în Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (A Charles and the Charles of the State of th	Ciner (Expir	alli III Remarks)
Thick Dark Surface (A12)		Masses (F12) (LRR O, P,	T) Sindicators	of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 1504		13) (LRR P, T, U)	7.5	hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17			isturbed or problematic.
Sandy Gleyed Matrix (S4)		18) (MLRA 150A, 150B)		action and the property of
Sandy Redox (S5)		ain Soils (F19) (MLRA 14		
Stripped Matrix (S6)		Loamy Soils (F20) (MLR		D)
Dark Surface (S7) (LRR P, S, T, U)				
Restrictive Layer (if observed):			1	
Type:				
Depth (inches):			Hydric Soil Pres	sent? Yes X No
Remarks:			10,000	
Trainising.				

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Chambe	ers County	Sampling Date: 5 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL	C	State: Texas	Sampling Point: DP773
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township, Ra	ange:	71.72.72.7
Landform (hillslope, terrace, etc.): flood plain	Local relief (concave,	convex, none): Concav	/e Slope (%): 1
		Long: -94.375166°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes		NWI class	ification: None
Are climatic / hydrologic conditions on the site typical for this time of	, , , , , , , , , , , , , , , , , , ,	(If no, explain in	
		"Normal Circumstances	
Are Vegetation, Soil, or Hydrology naturally	problematic? (If n	eeded, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling point	locations, transec	ts. important features, etc
Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present? Yes X No Yes X No	Is the Sample	d Area	X No .
Remarks:			
HYDROLOGY Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	alv)		oil Cracks (B6)
Surface Water (A1) Aquatic Fauna			/egetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (The second secon	Patterns (B10)
Saturation (A3) Hydrogen Sulfin	de Odor (C1)	Moss Trim	Lines (B16)
Water Marks (B1) Oxidized Rhizo	spheres along Living Root	s (C3) Dry-Seaso	on Water Table (C2)
	educed Iron (C4)		Jurrows (C8)
1 - 1 1 1 1 1 1 1 1	duction in Tilled Soils (C6)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surf	Marie Colores	The Country of the Co	nic Position (D2) quitard (D3)
Inundation Visible on Aerial Imagery (B7)	in Homano,		ral Test (D5)
Water-Stained Leaves (B9)		Sphagnun	n moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No X Depth (inc			
Water Table Present? Yes X No Depth (inc			
(includes capillary fringe)		etland Hydrology Pres	ent? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspection	s), if available:	
Positional			
Remarks:			

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	No No	FAC FAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: (B) Percent of Dominant Species
	No No	FAC	Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species
	No		Species Across All Strata: (B) Percent of Dominant Species
		FAC	Percent of Dominant Species
_		_	That Are ORL EACIN or EAC: 100% /A
	_		That Are OBL, FACW, or FAC:(A)
		-	Prevalence Index worksheet:
	-	_	Total % Cover of: Multiply by:
	2000	-	OBL species x 1 =
	Total Cove		FACW species x 2 =
20% of I	total cover:	1496	FAC species x 3 =
			FACU species x 4 =
	Yes	FAC	
	-	-0	UPL species x 5 =
	-	9.1	Column Totals:0 (A)0 (I
		2	Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
	-	8	
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			☐ 3 - Prevalence Index is ≤3.0 ¹
			Problematic Hydrophytic Vegetation¹ (Explain)
20 % 01 1	olal cover.	070	
			Indicators of hydric soil and wetland hydrology must
	Y05	FAC	be present, unless disturbed or problematic.
	-		Definitions of Four Vegetation Strata:
	~	-	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
	8		more in diameter at breast height (DBH), regardless
		~	height.
	8		Sapling/Shrub - Woody plants, excluding vines, les
	-	-	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		5	Herb - All herbaceous (non-woody) plants, regardle
		-	of size, and woody plants less than 3.28 ft tall.
			C2-2325-C2-4451-24-17-17-17-17-17-17-17-17-17-17-17-17-17-
		-	Woody vine - All woody vines greater than 3.28 ft in
		_	height.
nic.	No. of Sec.		
20% of 1	otal cover:	5%	
-			
	-	-	
	2	<i>a</i>	
		9	
	ė	-	Hydrophytic
6 =	Total Cov	er	Vegetation
The same of the sa			Present? Yes X No No
_0.0011			
9	% = 20% of I	Total Cover: Yes Total Cover: Yes Total Cover: Total Cover: Total Cover:	Yes FAC Yes FAC Total Cover

SOIL				Sampling Point: DP773
Profile Description: (Describe to the dep	th needed to docum	ent the indicator or c	onfirm the absenc	
Depth Matrix		Features		
(inches) Color (moist) %	Color (moist)	% Type L	oc ² Texture	Remarks
0 = 24 10YR 3/1 95	10 YR 5/2	5 RM M	Clay loam	
		4		
			-	-
Type: C=Concentration, D=Depletion, RM=				n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherv	vise noted.)	Indicator	rs for Problematic Hydric Soils ³ ;
Histosol (A1)	☐ Polyvalue Belo	ow Surface (S8) (LRR	S, T, U) 🔲 1 cm	Muck (A9) (LRR O)
Histic Epipedon (A2)	☐ Thin Dark Surf	ace (S9) (LRR S, T, L) 2 cm	Muck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky	Mineral (F1) (LRR O)	☐ Redu	uced Vertic (F18) (outside MLRA 150A, E
☐ Hydrogen Sulfide (A4)	Loamy Gleyed	Matrix (F2)	☐ Pied	mont Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5)	Depleted Matri	ix (F3)	☐ Anon	malous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark St	urface (F6)	(M)	LRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark	Surface (F7)	☐ Red	Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depres	sions (F8)	☐ Very	Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	☐ Marl (F10) (LR)	RU)	☐ Othe	r (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochr	ic (F11) (MLRA 151)		
☐ Thick Dark Surface (A12)	☐ Iron-Mangane:	se Masses (F12) (LRF	(O, P, T) 3Ind	ficators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 1504	N) 🔲 Umbric Surfac	e (F13) (LRR P, T, U)	W	etland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F	F17) (MLRA 151)	ur	nless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Verti	c (F18) (MLRA 150A,	150B)	
Sandy Redox (S5)		dplain Soils (F19) (ML		
☐ Stripped Matrix (S6)	☐ Anomalous Bri	ight Loamy Soils (F20)	(MLRA 149A, 153	C, 153D)
Dark Surface (S7) (LRR P, S, T, U)				
Restrictive Layer (if observed):			- 1	
Туре:	_			
Depth (inches):			Hydric So	ill Present? Yes X No
Remarks:			6.3 00.7 0000	
isomarks.				

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Cham	bers County	Sampling Date: 5 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL	С	State: Texas	_ Sampling Point: DP782
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township,	Range:	10.32.70
Landform (hillslope, terrace, etc.): flood plain	Local relief (concav	e, convex, none): Concave	Slope (%): 1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29	1.751578°	Long: -94.374276°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes,		NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil, or Hydrology significal Are Vegetation, Soil, or Hydrology naturally SUMMARY OF FINDINGS – Attach site map showing the stress of the stress of the site of the stress o	ntly disturbed? A problematic? (I	o (If no, explain in tre "Normal Circumstances" f needed, explain any answ at locations, transect	present? Yes X No ers in Remarks.)
Hydrophytic Vegetation Present? Yes X No Hydric Soill Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:	Is the Samp within a We	oled Area tland? Yes	X No .
Sediment Deposits (B2)	(B13) B15) (LRR U) de Odor (C1) spheres along Living Reduced Iron (C4) duction in Tilled Soils (Cace (C7)	Surface So Sparsely V. Drainage P Moss Trim Dots (C3) Dry-Seasor Crayfish Bu Saturation	Visible on Aerial Imagery (C9) c Position (D2)
Inundation Visible on Aerial Imagery (B7)		parties .	al Test (D5) moss (D8) (LRR T, U)
Water-Stained Leaves (B9) Field Observations:	1	Spriagrium	moss (Do) (LKK 1, U)
Surface Water Present? Yes X No Depth (inch Water Table Present? Yes X No Depth (inch	nes): Surface	Wetland Hydrology Prese	ent? Yes X No
		4 4 1 12	
Remarks:			

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Tree Stratum (Plot size:)	Absolute	Dominant	Indicator	Dominance Test worksheet:
	1	Species?		Number of Dominant Species
Fraxinus pennsylvanica	50	Yes	FACW	That Are OBL, FACW, or FAC:3 (A)
2 Cettis laevigata	5	No	FAC	Total Number of Dominant
Ulmus rubra	10	No	FAC	Species Across All Strata:3(B)
1,		-	PI	Brown & Brown and Brown
5			-	Percent of Dominant Species That Are OBL, FACW, or FAC; 100% (A/
5		_		That Ac Obe, I Adiv, of I Ad (A
7		-	-	Prevalence Index worksheet:
3,				Total % Cover of: Multiply by:
		= Total Cov	7	OBL species x 1 =
F00/ -F1-1-1 2285	T-1-110			FACW species x 2 =
50% of total cover: 33%	20% of	total cover	1530	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
. Ligustrum sinense	10	No.	FAC	UPL species x 5 =
7 Triadica sebifera	60	Yes	FAC	Column Totals: 0 (A) (E
3,	-		9.	Column rotals: (A) (E
1.			~	Prevalence Index = B/A =
j,		_		Hydrophytic Vegetation Indicators:
5		-	8	1 - Rapid Test for Hydrophytic Vegetation
			8	
3.			_	Z - Dominance Test is >50% Dominance Test is >50%
		= Total Cov		☐ 3 - Prevalence Index is ≤3.0¹☐ Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 35% Herb Stratum (Plot size:)	20% of	total cover	14%	
	25	Mar	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				The first of the supplier of the supplier of the supplier of
		3		Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
				more in diameter at breast height (DBH), regardless
5				height.
5		8	_	Sapling/Shrub - Woody plants, excluding vines, les
7			~	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3			5	Herb - All herbaceous (non-woody) plants, regardles
9.				of size, and woody plants less than 3.28 ft tall.
10.		-		
11				Woody vine - All woody vines greater than 3.28 ft in height.
12.			=	neight.
	9500	+1116		
	0070	= Total Cov		
	000/ 0			
50% of total cover: 43%	20% of	total cover	17.90	
50% of total cover:43% Noody Vine Stratum (Plot size:)	- 4.2.1.2.1		17.98	
50% of total cover:43% Woody Vine Stratum (Plot size:) 1				
50% of total cover:43% Woody Vine Stratum (Plot size:) 1)	=			
50% of total cover:43% Woody Vine Stratum (Plot size:) 1) 23.				
50% of total cover:43% Woody Vine Stratum (Plot size:) 1) 23.				Hydrophytic
50% of total cover: 43% Noody Vine Stratum (Plot size:) 2 3 4				Hydrophytic Vegetation
50% of total cover: 43% Noody Vine Stratum (Plot size:) 2 3 4	0%			

SOIL					Sampling Point: DP782
Profile Description: (Describe to the depti	needed to docu	ment the indicator	or confirm	the absence o	
Depth Matrix		ox Features			
(inches) Color (moist) %	Color (moist)	% Type	Loc	Texture	Remarks
0 - 24 10YR 3/2 95	10 YR 5/2	5 RM	М	Clay loam	
			-		
			0-0-7		
			_		
Type: C=Concentration, D=Depletion, RM=I			ains.		PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L	RRs, unless othe	rwise noted.)		Indicators fo	or Problematic Hydric Soils ³ ;
Histosol (A1)	☐ Polyvalue Be	elow Surface (S8) (LRR S, T, U) 1 cm Mu	ick (A9) (LRR O)
Histic Epipedon (A2)	☐ Thin Dark St	urface (S9) (LRR S,	T, U)	The second secon	ick (A10) (LRR S)
Black Histic (A3)	Loamy Muck	(y Mineral (F1) (LRI	₹ 0)	☐ Reduced	d Vertic (F18) (outside MLRA 150A, E
Hydrogen Sulfide (A4)	■ Loamy Gleye	ed Matrix (F2)		☐ Piedmor	nt Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5)	X Depleted Ma	atrix (F3)		☐ Anomalo	ous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)		Surface (F6)			A 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Da	rk Surface (F7)			ent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depre				allow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	☐ Marl (F10) (L	LRR U)		Other (E	xplain in Remarks)
Depleted Below Dark Surface (A11)		hric (F11) (MLRA 1		-	
Thick Dark Surface (A12)		ese Masses (F12)			tors of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)		ace (F13) (LRR P,			nd hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)		(F17) (MLRA 151)		unles	is disturbed or problematic.
Sandy Gleyed Matrix (S4)		rtic (F18) (MLRA 1		and the second	
Sandy Redox (S5)		oodplain Soils (F19			
Stripped Matrix (S6)	Anomalous I	Bright Loamy Soils	(F20) (MLR	A 149A, 153C, 1	153D)
Dark Surface (S7) (LRR P, S, T, U)				r	
Restrictive Layer (if observed):					
Type:	_			Section .	
Depth (inches):				Hydric Soil P	resent? Yes X No
Remarks:				*	

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Chamb	ers County	Sampling Date: 5 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL		State: Texas	Sampling Point: DP787
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township, F	Range:	377 347 10 4 6
Landform (hillslope, terrace, etc.): flood plain	Local relief (concave	, convex, none): Conca	ve Slope (%): 1
		Long: -94.374840°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes		3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	sification: None
Are climatic / hydrologic conditions on the site typical for this time of			
Are Vegetation, Soil, or Hydrology significa	antly disturbed? An	e "Normal Circumstances	s" present? Yes X No
		needed, explain any ans	
SUMMARY OF FINDINGS – Attach site map show	ing sampling point	locations, transec	cts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X No	Is the Sample within a Wet	ed Area land? Yes	X No
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	100		dicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app			Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna		The second secon	Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (Patterns (B10)
Saturation (A3) Hydrogen Sulfi Water Marks (B1) Oxidized Rhizo	ge Odor (C1) ospheres along Living Roo		n Lines (B16) on Water Table (C2)
i	educed Iron (C4)		Burrows (C8)
	eduction in Tilled Soils (Co		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surf			hic Position (D2)
Iron Deposits (B5) Other (Explain	in Remarks)	Shallow A	equitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neut	tral Test (D5)
Water-Stained Leaves (B9)		Sphagnur	n moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes X No Depth (inc			
	ches): Surface		
Saturation Present? Yes X No Depth (inc (includes capillary fringe)	thes): Surface	Wetland Hydrology Pres	sent? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspectio	ns), if available:	
Remarks:			
Actitates.			

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the second secon			Indicator	Dominance Test worksheet:
ree Stratum (Plot size:) Fraxinus pennsylvanica	% Cover	Species?	Status FACW	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	No	FAC	(1)
				Total Number of Dominant
			_	Species Across All Strata: (B)
-			_	Percent of Dominant Species
		-		That Are OBL, FACW, or FAC: 100% (A/
		-	_	Prevalence Index worksheet:
			<u> </u>	Total % Cover of:Multiply by:
K		3,	-	
	60%	= Total Cov	/er	OBL species x 1 =
50% of total cover: 30%	6 20% of	total cover	1296	FACW species x 2 =
apling/Shrub Stratum (Plot size:)				FAC species x 3 =
, Triadica sebifera	60	Yes	FAC	FACU species x 4 =
Crataegus marshallii	5	No	FAC	UPL species x 5 =
		-	_	Column Totals: 0 (A) 0 (E
			2	200700000000000000000000000000000000000
				Prevalence Index = B/A =
-			=	Hydrophytic Vegetation Indicators:
-				1 - Rapid Test for Hydrophytic Vegetation
·				2 - Dominance Test is >50%
4		-	<u> </u>	3 - Prevalence Index is ≤3.0 ¹
	65%	= Total Cov	er	Problematic Hydrophytic Vegetation (Explain)
				be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
		2	~	height.
				height. Sapling/Shrub - Woody plants, excluding vines, les-
<u> </u>				height.
		=	=	height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
0				height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0				height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
0				height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	75%	= Total Cov		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	75%	= Total Cov		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
	75% 20% of	= Total Cox		height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	75%	= Total Cov		height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	75% , 75% of	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	75% , 75% of	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	75% , 75% of	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	75% , 75% of	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	75%	= Total Cover	rer : 15%	height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	75% 75% 75% 75% 75% 75% 75% 75% 75% 75%	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	75% 75% 75% 75% 75% 75% 75% 75% 75% 75%	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	75% 75% 75% 75% 75% 75% 75% 75% 75% 75%	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	75% 75% 75% 75% 75% 75% 75% 75% 75% 75%	= Total Cover		height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

SOIL					Sampling Point: DP787
Profile Description: (Describe to the dept	h needed to docu	ment the indicate	or or confirm	n the absence of i	
Depth Matrix		x Features		View accord	
(inches) Color (moist) %	Color (moist)	<u>%</u> Type		Texture	Remarks
0 = 24 10YR 3/2 90	10 YR 5/3	10 RM	М	Clay	
		1.4			
			04		
					2
Type: C=Concentration, D=Depletion, RM=			Grains.		=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I					Problematic Hydric Soils ³ ;
Histosol (A1)	☐ Polyvalue Be				(A9) (LRR O)
Histic Epipedon (A2)	☐ Thin Dark St			The second secon	(A10) (LRR S)
Black Histic (A3)		y Mineral (F1) (L	KK OJ		Vertic (F18) (outside MLRA 150A, E
	Loamy Gleye Depleted Ma	ed Matrix (F2)			Floodplain Soils (F19) (LRR P, S, T s Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark			(MLRA	
5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Depleted Da	And the second second			nt Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depre				ow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (L				plain in Remarks)
Depleted Below Dark Surface (A11)		hric (F11) (MLRA	151)	- com (and	
Thick Dark Surface (A12)		ese Masses (F12		T) ³ Indicator	rs of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A		ce (F13) (LRR P			hydrology must be present.
Sandy Mucky Mineral (S1) (LRR O, S)		(F17) (MLRA 15			disturbed or problematic.
Sandy Gleyed Matrix (S4)	☐ Reduced Ve	rtic (F18) (MLRA	150A, 150B)		
Sandy Redox (S5)		oodplain Soils (F1			
Stripped Matrix (S6)	☐ Anomalous B	Bright Loamy Soil	s (F20) (MLR	IA 149A, 153C, 15	3D)
Dark Surface (S7) (LRR P, S, T, U)	4.7				
Restrictive Layer (if observed):				1	
Type:	_			4.0	
Depth (inches):				Hydric Soil Pre	sent? Yes X No
Remarks:					

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel	City/County: Chamb	ers County	Sampling Date: 5 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LL		State: Texas	Sampling Point: DP789
Investigator(s): Lee Sherrod and Tony Vazquez	Section, Township, F	Range:	7777327707
Landform (hillslope, terrace, etc.): flood plain	Local relief (concave	, convex, none): Conca	/e Slope (%): 1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29	9.752529°	Long: -94.375839°	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes		11.00	ification: None
Are climatic / hydrologic conditions on the site typical for this time of	1		
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Ar	e "Normal Circumstances	s" present? Yes X No
		needed, explain any ans	
SUMMARY OF FINDINGS – Attach site map show	ing sampling point	t locations, transec	ts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X No	Is the Sampl within a Wet	ed Area land? Yes	X No
Remarks:	-		
HYDROLOGY			
Wetland Hydrology Indicators:	100		licators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap			oil Cracks (B6)
Surface Water (A1)		The second second	Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits			Patterns (B10)
Saturation (A3) Hydrogen Sulfi Water Marks (B1) Oxidized Rhizo	ospheres along Living Ro		n Lines (B16) on Water Table (C2)
1	educed Iron (C4)		Burrows (C8)
4 1.20 M. C.	eduction in Tilled Soils (C	The second secon	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Sur			nic Position (D2)
Iron Deposits (B5) Other (Explain			quitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neut	ral Test (D5)
Water-Stained Leaves (B9)		Sphagnur	n moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes X No Depth (inc			
	ches): Surface		
Saturation Present? Yes No Depth (includes capillary fringe)	ches): Surface	Wetland Hydrology Pres	sent? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspection	ons), if available:	
Remarks:			
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		Dominant		Dominance Test worksheet:
ree Stratum (Plot size:)	-	Species?		Number of Dominant Species
_ Fraxinus pennsylvanica	10	Yes	FACW	That Are OBL, FACW, or FAC:4 (A)
Taxodium distictium	25	Yes	OBL	Total Number of Dominant
3		-	1	Species Across All Strata:4 (B)
4		.=	2	Percent of Dominant Species
5			-	That Are OBL, FACW, or FAC: 100% (A)
6		-		
7			2	Prevalence Index worksheet:
8		8.		Total % Cover of: Multiply by:
	35%	= Total Co	ver	OBL species x 1 =
50% of total cover:18%	20% of	total cover	7%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	100000	1,9000 (0.00)		FAC species x 3 =
1, Triadica sebitera	75	Yes	FAC	FACU species x 4 =
2 Salix nigra	5	No	OBL	UPL species x 5 =
		-	-	Column Totals:0 (A)0 (E
3			-	
4			-	Prevalence Index = B/A =
5			\leftarrow	Hydrophytic Vegetation Indicators:
6		-	_	1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8			2	3 - Prevalence Index is ≤3,0 ¹
	80%	= Total Co	ver	Problematic Hydrophytic Vegetation (Explain)
	20% of	total cover		
50% of total cover: 40%		10121 00101	1070	Value of the second sec
Herb Stratum (Plot size:)	75	Yes	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size;) 1_ Rubrus suus				be present, unless disturbed or problematic.
Herb Stratum (Plot size;) 1_ Rubrus suus 2. Saururus cemuus	75	Yes	FAC	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
Herb Stratum (Plot size;) 1. Rubrus suus 2. Saururus cemuus 3. Campsis radicans	75 5	Yes No	FAC ØBL FAC	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
Herb Stratum (Plot size;) 1_ Rubrus suus 2. Saururus cemuus 3, Campsis radicens 4. Hibiscus moscheutus	75 5 5 10	Yes No No	FAC OBL FAC OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
Herb Stratum (Plot size:)	75 5 5 10	Yes No No No	FAC ØBL FAC	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
Herb Stratum (Plot size;) 1. Rubrus suus 2. Saururus cemuus 3. Campsis radicens 4. Hibiscus moscheutus 5. Physalis angulata 6.	75 5 10 1	Yes No No	FAC OBL FAC OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les
Herb Stratum (Plot size;) 1. Rubrus suus 2. Saururus cemuus 3. Campsis radicens 4. Hibiscus moscheutus 5. Physalis angulata 6.	75 5 5 10 1	Yes No No No	FAC OBL FAC OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb Stratum (Plot size;) 1. Rubrus suus 2. Saururus cemuus 3. Campsis radicens 4. Hibiscus moscheutus 5. Physalis angulata 6. 7.	75 5 10 1	Yes No No No	FAC OBL FAC OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles
Herb Stratum (Plot size;) 1. Rubrus suus 2. Saururus cemuus 3. Campsis radicens 4. Hibiscus moscheutus 5. Physalis angulata 6 7 8 9	75 5 5 10 1	Yes No No No	FAC OBL FAC OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.
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	ck (A9) (LRR P, T)		_	Marl (F10) (L	The second second	3/				(Explain in Remarks)
	Below Dark Surfac			Depleted Oct	hric (F11)	(MLRA 1	51)			
Thick Da	rk Surface (A12)			Iron-Mangan	ese Mass	es (F12) (LRR O, P	, T)	³ India	cators of hydrophytic vegetation and
	rairie Redox (A16) (Umbric Surfa			, U)			tland hydrology must be present,
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	edox (S5)			Piedmont Flo Anomalous B					4620	4530)
I Diringgal			ш	Anomalous E	sright Loa	illy Solis (FZU) (NIL	NA 1436	1, 1556	, 1330)
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APPENDIX D – JURISDICTIONAL DETERMINATION SUBMITTAL WEST TRACT



Environmental Services, Inc.

20 September 2016

Mr. John Davidson
Compliance Section
U.S. Army Corps of Engineers,
Galveston District, Regulatory Branch
P.O. Box 1229
Galveston, Texas 77553-1229

RE: Proposed Seabreeze Mitigation Bank – 241± Acres West of SH 124
Chambers County, Texas
Section 404 Jurisdictional Determination
HJN 150158 WD

Dear John,

In January of this year, we submitted a request to review previous PC information for a 241 ac \pm parcel west of SH 124 and south of Spindletop Bayou in Chambers County south of Winnie/Stowell (Figure 1). That request submittal included a 1992 Certified Wetland Determination by the NRCS and a 2015 refusal by NRCS to prepare an updated determination. Also included was a brief cropping history.

We met with you and Kevin Mannie in early March to discuss that request. At that meeting you indicated that the 1992 Certified Wetland Determination made by NRCS was too old (pre-1998 soil mapping convention) to be considered valid by the USACE relative to a Section 404 jurisdictional determination.

We conducted an independent wetland determination on the property to compare to the 1992 NRCS determination. We did identify some differences in our opinion and provided that determination to the NRCS for reconsideration of their earlier determination. Upon review of our information, the NRCS concluded that there were errors in their previous determination and agreed to prepare a new Certified Wetland Determination for the entire Middleton Estate farm, which includes the subject 241-acre parcel as well as the 50-acre parcel east of SH 124 we previously submitted to your office.

The new NRCS determination is attached, along with our independent determination, and additional information on cropping history. We are asking your review of this new information to determine the validity of the PC determination relative to Section 404 jurisdiction.

Seabreeze MB PC.doc

CORPORATE HEADQUARTERS

1507 S Interstate 35 ★ Austin, Texas 78741-2502 ★ 512.328.2430 ★ www.horizon-esi.com

Certified WBE/HUB/DBE/SBE



Mr. Kenny Jaynes HJN 150158 WD 15 January 2016 Page 2

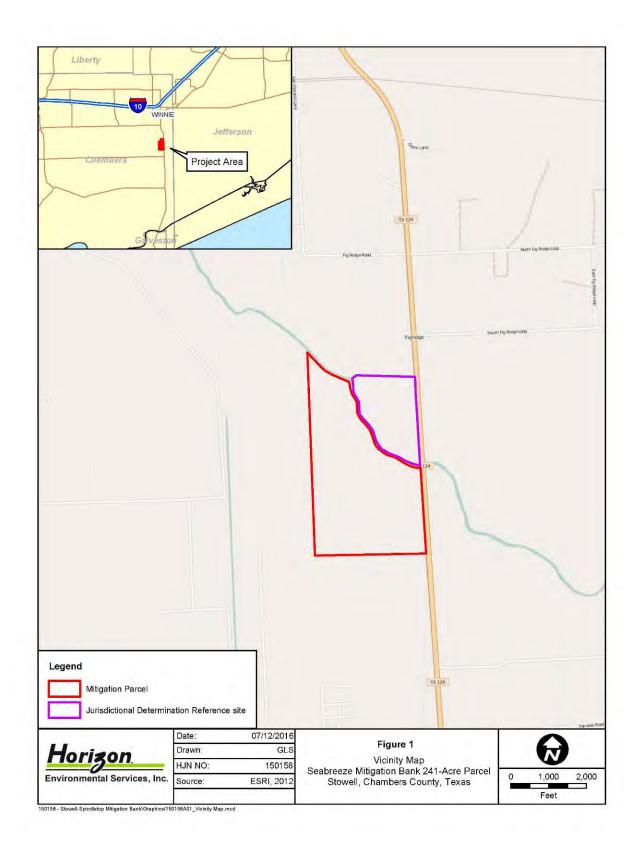
If you have any questions or require additional information please contact me at 512-328-2430.

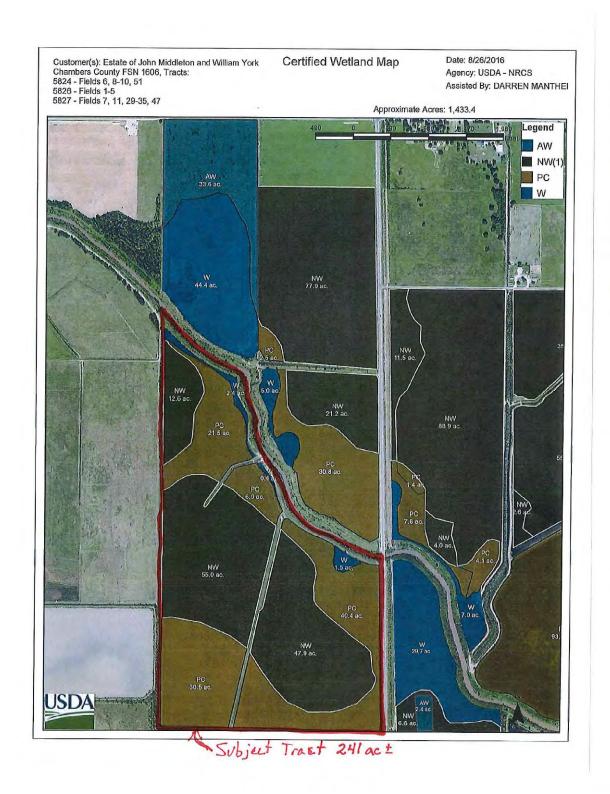
Sincerely,

C. Lee Sherrod Vice President

c: Cliff Sunda, Wildwood Credit Company

Seabreeze MB 241-ac PC doc





Thursday, August 04, 2016 RE: Decision effective as of January 23, 1992

Estate of John Middleton 4306 Yoakum, Suite 540 Houston, Texas 77006

William York P.O. Box 354 Stowell, Texas 77661

Request for Review - Certified Wetland Determination

Chambers County FSN 1606 Tract 5824

To all, including Electronic CC recipients:

Person, as defined in Title 7 Code of Federal Regulations Part 12 (7CFR12) § 12.2, submitted a Request for Review of a Certified Wetland Determination on Chambers County USDA FSN 1606 Tract 5824, Fields 9, 10 and 51 via a form CPA-38. The determination being cited was final as of January 23, 1992. I have reviewed the request and the report, and respond as follows:

Pursuant to the National Food Security Act Manual (NFSAM) Section 514.1 C (2), 7CFR12 § 12.30(c) (6) and 16 U.S.C. Sec. 3822(a) (4), a person may request review of a final certified wetland determination when:

- 1) If NRCS concurs with an affected person that an error exists in the current wetland determination.
- 2) A person must make all requests...in writing, stating...where NRCS error is cited...
 - a. what the error is, and
 - b. how it affects the final certified wetland determination validity.

The request cites and delineates mapping errors, which were based on the mapping convention in use at the time (verbiage from the request is "less accurate mapping"). The map associated with the request also cites a field that had not been delineated (Field 51) within the Farm, when the original determination was a "Total Farm Determination" according to the original CPA-026e. I have reviewed the report and the request, and concur that there are errors in the mapping of wetland boundaries as described in the request. Because the question of validity is tied to the procedures used for the farm, I will re-issue the farm determination using current methods as outlined in the National Food Security Act Manual's Wetland Identification Procedures, as supported by the Corps of Engineers Wetland Delineation Manual (NRCS-adopted parts only) and the associated Regional Supplement (as needed). Because new acreage will be added to the farm determination (Field 51) the determination will be issued as a Preliminary Determination with informal appeal rights before it is certified as a Final Technical Determination (which will include final appeal rights).

Sincerely,

Darren K. Manthei 979-846-0757 ext. 106 Area Wetland Specialist darren.manthei@tx.usda.gov

Electronic CC: David S. Manthei – NRCS District Conservationist – Anahuac, TX
Phillip Stewart – NRCS Resource Team Leader – Liberty, TX
H. Dan Keesee – NRCS State Wetland Specialist – Temple, TX
Cliff J. Sunda – Vice President-Operations – Wildwood Env. Credit Company, LLC

SUMMARY OF RECENT CROPPING HISTORY

Rice production has occurred on fields 9 and 10 for over seventy-five years. Production of conventional rice in a given year was followed by two years of rest before being cropped again. The loss of Spindletop Weir in Hurricane Ike allowed salt water intrusion into Spindletop Ditch which prevented the site from being farmed from 2009 - 2014. Immediately following the hurricane salt levels were too high in the field and they had to be flushed from the field using the irrigation as freshwater became available. Repairs to Spindletop Weir were completed in 2014 and rice farming commenced at the site again in 2015. The field was prepped for farming in 2016 but rains prevented harvest of the crop. The field is currently prepped to plant in 2017. Table 1 contains a summary of the recent cropping history of the west unit. The field was farmed in 2015, the 5th year after salts had been flushed from the field.

The field is leased for farming. The field could not be leased for a crop other than rice due to their risky nature. See following email from the NRCS describing the risky nature of farming soybeans or wheat in this area. As a result this farm has historically only been used for grazing or rice farming.

Table 1. Recent cropping history of fields 9 and 10 (west of SH 124).

Year	Activity	Comment
2004	Farmed	Leased to farmer and farmed in conventional rice
2005	Rested	Conventional rice farming required a 2-year rest period following cropping
2006	Rested	44
2007	Pump Failure	Pump had to be replaced. Inadequate funds available. Grazing lease established to ensure maintenance until funds became available
2008	Hurricane	Hurricane Ike in Sept. 2008 destroys salt water barrier at Spindletop Weir
2009	Flush Saltwater	Pump replaced and used to flush fields of saltwater when water was available.
2010	Flush Saltwater	Salt levels still too high to crop fields.
2011	Unable to Farm	Insufficient freshwater to farm rice / field leased for grazing
2012	96	(4)
2013	**	4
2014	44	Spindletop Weir repaired by TBCD
2015	Farmed	First time site could be farmed since September 2008 (organic rice)
2016	Farmed	Field prepped to farm but wet weather prevented cropping (organic rice)

9/18/2016

Inbox [1/20] - Cliff Sunda < cliff@wildwoodcredits.com>

Farming in Chambers County, Greater than 5 years Fallow

From: "Manthei, David - NRCS, Anahuac, TX" < David.Manthei@tx.usda.gov >

To: cliff@wildwoodcredits.com

12/01/15 11:33

Cliff,

As we discussed, there are some things to consider when it comes to determining whether a farm field might be considered "abandoned", and in determining whether a farmer should farm ANY crop if it becomes impossible or impractical to farm rice for a period of time.

First, we look at whether a particular field is enrolled in agriculture...in the Farm Bill Program. If it is, then Food Security Act rules apply. So, in the case we had discussed, a "PC" field (which was delineated as a "PC" on a certified determination) is always a "PC", no matter how many years it sits fallow. COE will recognize our label in most cases, as long as the field is in Ag status. However, we always recommend producers to check with COE to make sure there are no jurisdictional wetlands on their land.

For Food Security Act, a field farmed in 2009 as a "PC", and then fallowed (not farmed) until 2015, can be farmed in 2015 as a "PC". That "PC" designation stays with the land unit until it is removed from the Farm Bill Program. There is a chance that COE could say the field has been abandoned, but for Food Security Act purposes, the land is still "PC". The producer would want to have contacted COE [however many years ago] to determine whether there were any jurisdictional wetlands on the field that could have been "abandoned".

If the field is then removed from agriculture, Corps of Engineers rules will apply and it is possible for the whole field to become "abandoned", and the COE may or may not recognize our "PC" label from that point on. To my understanding, one of the triggers for abandonment is 5 years without activity, and another is whether woody vegetation has grown up. If a field sits out more than 5 years, but no woody vegetation grows up (the field is maintained in grasses, or the site simply does not support woody vegetation) then it probably would not be considered a conversion...but you'd have to double check with COE about that.

Another consideration is whether a farmer, once he has determined that it is impractical/impossible to farm rice for a period of time on a particular field (such as after Hurricane lke when some fields simply could not receive irrigation water from a damaged canal system for several years), can or should grow some other crop. Soybeans do well enough here, but it is an extremely risky crop. Most farmers will avoid it because, after planting the bean, there must be no rain until the bean pops out of the surface. If a rain does come before then, the ground here will cake over and the bean will not be able to push through, and the crop will have failed before it even sprouted. Wheat is easier to get up, but comes with its share of risk as well. A farmer making winter wheat must rely on a dry fall/winter or have very high ground, because if the wheat gets too much water, it does poorly and fails as a crop. This is a major concern in a county with an average annual rainfall of 54 – 58 inches (some years reaching in to 60's, 70's, and even 90 inches in 2001). Some farmers will plant a field to Hay if they also graze cattle periodically, but that tends to be a more permanent option due to the cost and other inputs involved in establishing and maintaining Hay.

David Manthei
USDA-NRCS, District Conservationist
Anahuac Field Office
1751 S. Main St.
P.O. Box 819
Anahuac, TX 77514
409-267-3581 (office)
844-496-7059 (fax)

http://mail.wildwoodcredits.com:32000/webmail/



Tuesday, September 13, 2016

Estate of John Middleton 4306 Yoakum, Suite 540 Houston, TX 77006

William York P.O. Box 354 Stowell, TX 77661

> RE: Certified Wetland Determination/Delineation, Chambers County USDA FSN 1606 Tracts 5824, 5826 and 5827

Estate of John Middleton and William York;

I have received your written request to waive your appeal rights, and I am forwarding the certified wetland determination to the Farm Service Agency (FSA) via the attached form(s) CPA-026e. At this time the decision is final. Should you decide to appeal the final decision, you have a 30-day window after receipt of this letter to appeal to the FSA County Committee (COC) or to the National Appeals Division (NAD). For your convenience I am including their contact information, as listed in our appeals procedure policy documents, below:

You may appeal this determination to the FSA county committee (COC) by filing a written request no later than 30 calendar days after you receive this notice in accordance with the FSA appeal procedures found at 7 CFR Part 780. If you appeal to the COC, you have the right to an informal hearing that you or your representative may attend either personally or by telephone. To appeal, write to the COC at the following address and explain why you believe this determination is erroneous. That address is:

1351 HWY 146 BYP LIBERTY, TX 77575

Alternatively, you may appeal this determination to the National Appeals Division (NAD) by filing a written request no later than 30 calendar days after you receive this notice in accordance with the NAD appeal procedures found at 7 CFR Part 11. If you appeal to NAD, you have the right to a hearing that you or your representative may attend. Once a hearing with NAD begins, you waive any rights to reconsideration, an appeal to FSA, and mediation. To appeal, you must write to NAD at the following address, explain why you believe this determination is erroneous, and provide a copy to FSA. You must personally sign your written appeal to NAD and include a copy of this letter. That address is:

Assistant Director - Western Regional Office National Appeals Division 755 Parfet Street, Suite 494 Lakewood, Colorado 80215-5506

> Natural Resources Conservation Service (NRCS) 1716 Briancrest Dr., Suite 510, Bryan, TX 77802 Voice: 979/846-0757 Fax: 979/846-0923 An Equal Opportunity Provider and Employer



Phone: (303) 236-2862 Toll Free: 1-800-541-0483

Fax: (303) 236-2820 Online at: http://www.nad.usda.gov/index.html

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

Darren K. Manthei Area Wetland Specialist

979-846-0757 ext. 106 darren.manthei@tx.usda.gov

Electronic CC – Jeremy Hughes – FSA County Executive Director – Liberty, Texas
David S. Manthei – NRCS District Conservationist – Anahuac, Texas
Phillip Stewart – NRCS Resource Team Leader – Liberty, Texas
Cliff Sunda – V.P. Operations, Wildwood Environmental Credit Company, LLC

Natural Resources Conservation Service (NRCS) 1716 Briarcrest Dr., Suite 510, Bryan, TX 77802 Voice: 979/846-0757 Fax: 979/846-0923 An Equal Opportunity Provider and Employer



Thursday, September 01, 2016

Estate of John Middleton 4306 Yoakum, Suite 540 Houston, TX 77006

William York P.O. Box 354 Stowell, TX 77661

RE: Certified Wetland Determination/Delineation, Chambers County USDA FSN 1606 Tracts 5824, 5826 and 5827

Estate of John Middleton (mailed Certified Receipt) and William York (copied via USPS First-Class Mail):

NRCS has completed the Certified Wetland Determination report in response to the form CPA-38 you signed on July 16, 2016, which was referred to NRCS for a wetland determination as part of a Request for Review of a Certified Wetland Determination that was certified on January 23, 1992. Most of this letter and the report section will seem impersonal and technical; some of it is due to required text, and some is just because it's technical. But before I get started I'll give you the bottom-line. NRCS used current procedures to complete the determination for Farm 1606, as it appeared in the 1992 determination. There were no adverse findings per se, but some delineation lines have changed, and one area within a reservoir that had been labeled as Artificial Wetland (AW) has been corrected to be labeled as a Wetland (W). There is no anticipated difference in how this effects your operation, but because there are changes, appeal rights are being provided. Please refer to How This Determination Might Impact Person section of the following report. Your appeal rights are as explained in the Appeals Rights below.

The 2014 Farm Bill connected producer eligibility for Federal crop insurance premium subsidy to compliance with the wetland conservation provisions. Eligibility for most USDA programs is lost for any wetland conversions that have occurred after December 23, 1985. However, only wetland conversions that occur after February 7, 2014, result in ineligibility for Federal crop insurance premium subsidy.

There are findings of Wetland (W) in areas previously certified as Artificial Wetland (AW) and the boundaries of certain previously delineated wetland/non-wetlands has changed based on your request for review. These findings are currently "Preliminary" and remain so until either a "Final" determination is made or until the appeals period lapses. The pages following this Cover/Appeals Rights letter include the technical Certified Wetland Delineation Report, a Certified Wetland Map and other supporting documentation regarding the determination. If not appealed, this determination will become final 30 days after you receive this packet.

After the determination has become final it will be forwarded to Farm Services Agency.

Appeal Rights

At this time the determination is pending your appeal rights as follows:

1) You may request that NRCS reconsider this determination by filing a written request no later than 30 calendar days after you receive this notice (in accordance with the NRCS's appeal procedures found at 7 CFR Part 614). If you request reconsideration, you have the right to a field visit, office visit, or other designated location meeting site for an informal review. During the review you or your representative may provide additional information and discuss the facts relating to the preliminary technical

Natural Resources Conservation Service (NRCS) 1716 Briarcrest Dr., Suite 510, Bryan, TX 77802 Voice: 979/846-0757 Fax: 979/846-0923 An Equal Opportunity Provider and Employer



determination. Following reconsideration, you may further appeal the determination to the FSA county committee (COC) or the National Appeals Division (NAD). To request reconsideration, write to the Bryan Area Office – Wetland Specialist at the following address, and explain why you believe this determination is erroneous. That address is:

NRCS Wetland Specialist 1716 Briarcrest Dr. Suite 510 Bryan, Texas 77802

2) Mediation is another option available as part of NRCS's informal appeals process. Mediation may enable NRCS to narrow the issues and resolve the matter by mutual agreement. You may have to pay all or part of the cost of mediation. If you request mediation, the running of the timeframe in which you may file an appeal stops. When mediation closes, the clock restarts and you will have the balance of the days remaining in that period to file an appeal. To request mediation, you must submit your written request no later than 30 calendar days after you receive this notice. To request mediation, write to the Texas State mediation program at the following address and provide a copy of your request for mediation to NRCS. That address is:

Dispute Resolution Center Texas Rural Mediation Services P.O. Box 10536 Lubbock, Texas 79408-3536 Phone: (806) 775-1720 Toll Free: (866) 329-3522 Fax (806) 775-1729

If you do not wish to appeal the findings, you can either write to me a statement that you are accepting the findings as they are and wish to waive your appeal rights, or you can allow 30 days to pass without response. Email response is acceptable. I will mark a date on my calendar once I have received confirmation from the post office that you have received this letter, or once I have been contacted by you via phone or email that you have received this letter. If you have questions regarding this report, its findings, and how the general process works you may contact me at your convenience either by phone (979-846-0757 ext 106) or email (darren.manthei@tx.usda.gov). Due to frequent traveling please understand that I may not always be available by phone, and messages may have a response time of 3-7 days depending on the travel situation.

Sincerely,

Darren K. Manthei Area Wetland Specialist

Electronic Cc:

David S. Manthei – NRCS District Conservationist – Anahuac, TX Cliff Sunda – V.P. Operations, Wildwood Environmental Credit Company, LLC

> Natural Resources Conservation Service (NRCS) 1716 Briarcrest Dr., Suite 510, Bryan, TX 77802 Voice: 979/846-0757 Fax: 979/846-0923 An Equal Opportunity Provider and Employer

Thursday, September 01, 2016

CERTIFIED WETLAND DELINEATION AND DETERMINATION REPORT ESTATE OF JOHN MIDDLETON; WILLIAM YORK CHAMBERS COUNTY – USDA FSN 1606 TRACTS 5824, 5826 AND 5827

BACKGROUND INFORMATION

For the purpose of this report, Landowner/Operator and affiliated owners/agents are collectively referred to as "Person" (per Title 7 CFR Part 12).

This wetland determination was the result of a form CPA-38 Request for Certified Wetland Determination or Delineation signed by Person July 16, 2016. A Certified Determination had been completed on this farm as "A whole farm determination" as of January 23, 1992. The person made requests, which were first denied (reference prior agency responses). However, a request was made in August in which mapping errors were cited and how they affect the validity of the determination. NRCS concurred that errors occurred and that the determination's validity was compromised. A letter dated August 4, 2016 contains the agency response in which the request was granted; this determination is the outcome of the requested review.

USDA Natural Resources Conservation Service is mandated by Statute¹ to conduct wetland delineations for USDA program participants for purposes related to the wetland conservation provisions promulgated by the Food Security Act. The Act prohibits USDA program participants from converting wetlands for the purpose of or to make possible the production of a commodity crop².

The nature of this determination is technical and is supported under Title 7 Code of Federal Regulations Part 12 (7 CFR 12) as follows - Title 7 CFR Part 12 Sec.21.1(a) Scope. This part sets forth the terms and conditions under which a person who produces an agricultural commodity... on a converted wetland, or converts a wetland shall be determined to be ineligible for certain benefits... Sec.12.6(c)(2) An NRCS representative shall make... determinations which are required to be made in accordance with this part (v) whether the actions... on converted wetland would have only a minimal effect... (viii) whether the conversion of a wetland is for the purpose of or has the effect of making... production... possible; Sec.12.30(a)... NRCS shall (3) make or approve wetland determinations... relative to the implementation of the wetland conservation provisions of this part; (6) investigate complaints and make technical determinations regarding potential violations. This certified wetland determination meets NRCS's responsibilities outlined in Title 7 CFR 12.

This wetland delineation was conducted to (1) determine the scope of wetlands within the identified acreage, (2) to determine if any exemptions apply, as provided for in Title 7 Code of Federal Regulations Part 12 Section 12.5, and (3) for the exclusive purpose of implementing the Wetland Conservation provisions of the Food Security Act of 1985. As such, this determination and delineation may not be valid for identifying the extent of jurisdiction of the rules in Section 404 of the 1972 Clean Water Act, administered by EPA and the US Army Corps of Engineers (USACE). Some clearing activities, and installation of drains in wetlands and other waters of the U.S. are regulated by the USACE.

Definitions that are important to this determination are welland and converted wetland. The definitions used by USDA-NRCS are from Title 7 Code of Federal Regulations. Part 12 (7 CFR 12) § 12.2 et cetera as follows:

Wetland, except when such term is a part of the term "converted wetland", means land that-

- Has a predominance of hydric soils;
- Is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation...and
- Under normal circumstances does support a prevalence of such vegetation...

Converted Wetland is a wetland that has been drained, dredged, filled, leveled or otherwise manipulated, including the removal of woody vegetation...for the purpose of or to have the effect of making possible the production of an agricultural commodity...if (i) such production would not have been possible but for such action, and (ii) before such action such land was wetland...and was neither highly erodible land nor highly erodible cropland.

Converted Wetland is further explained in § 12.32(a) (2), where woody hydrophytic vegetation has been removed from hydric soils for the purpose of, or permitting the production of an agricultural commodity, the area will be considered to be a converted wetland.

Other technical definitions (hydric soil, hydrophytic vegetation and wetland hydrology are defined in *Procedures* below.

PROCEDURES

Darren K. Manthei, USDA-NRCS Wetland Specialist, conducted a site visit on August 31, 2016 to field-verify data from what is being recorded as an off-site determination (COE Manual, Part IV, Section D Subsection 1). Flexibility as allowed for in paragraph 23 of this same manual was used in that data sheets were not completed for the following reason: off-site data gathered, which included vegetation, hydrology and soils information, the National Wetland Inventory, aerial imagery, and 25 previously recorded data forms, had already been recorded by Horizon Environmental Services (data sheets), NRCS (soil survey data, Ecological Site Descriptions and hydrology criteria of soil mapping units), and USFWS (NWI Maps and their associated data/criteria).

This site visit was preceded by off-site study of historical aerial photography, soils maps and the respective soils data, and topographical maps. The primary objective was to correct the mapping errors by using approved methodology to correct the errors contained in the previously certified determination. Procedures outlined in the Food Security Act Wetland Identification Procedures, in consideration of the 1987 Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (87' Manual) and the corresponding Atlantic and Gulf Coastal Plains Regional Supplement, were used to determine the presence or absence of Food Security Act wetlands within the Sampling Units

A reconnaissance (off-site and on-site) of the project area as supported by off-site tools such as quadrangle sheets, soils maps, and aerial photography was conducted to determine whether or not potential impact areas would be considered as wetland. The Certified Wetland Determination and Delineation was performed in these areas to determine the proper labels to use for the Certified

Food Security Act of 1985 (P.L. 99-198, 99 Stat. 1504, December 23, 1985, as Amended Through P.L. 107-195, June 16, 2002...

²"Agriculture Commodity means any crop planted and produced by tilling of the soil, including tilling by one-trip planters, or sugarcane". (7CFR12.2 Definitions).

Wetland Map. Sampling Points were taken to determine and document soils, hydrology, and plant community characteristics.

<u>Hydrology</u> –The question for the hydrology portion of the determination is whether any areas support the definition of Wetland Hydrology, defined in the Wetland ID Procedures as *inundation* or saturation of the site by surface or groundwater during a growing season at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation.

<u>Soils</u> - The definition of *Hydric Soil* found in 7 CFR 12 §12.2 was used in determining whether soils met hydric criteria. This definition is: soils that, in an undrained condition, are saturated, flooded or ponded long enough during the growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation.

<u>Vegetation</u> - The definition of hydrophytic vegetation used in the determination as found in 7 CFR is a plant growing in water, or a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content.

Other - USDA wetland labels, as defined in USDA's NRCS Food Security Act Manual (NFSAM), were assigned to each inventoried area and placed on the Certified Wetland Map. The criteria for the different labels are provided for in the NFSAM, as supported by 7CFR Part 12 and the 1985 Food Security Act, as amended. The Act, as amended, stipulates that 23 December 1985 and 28 November 1990 are benchmark dates regarding regulated land conversion actions. The 1985 date is used regarding "planting of a crop on a converted wetland" and the 1990 date is used in connection with the restriction of USDA program participants "making production possible on a converted wetland". Refer to the How This Determination Might Impact Person section for more information.

A form NRCS-CPA-026e has been completed for this Tract. This is the official determination certification, and will remain in "Preliminary" status until certification results from either the expiration of appeals or a Final Technical Determination has been issued. An attachment to that form lists the wetland labels and provides a definition for each label.

FINDINGS

The majority of the findings regarding whether or not certain areas meet the definition of a wetland (y or n rather than the label) were consistent with the previous determination and the determination conducted by Horizon Environmental Services. The differences being in the exact delineation boundaries. The published soil maps and NWI maps were relied upon heavily in re-mapping these wetlands. However, one part of the Farm, within Tract 5824 in Field 51 could not be delineated by NRCS. Some portions of this field were validly delineated, but many areas within this field are a maintenance right of way for a bayou, held by the drainage district. These areas have been intentionally omitted from this determination. Aside from corrections to the boundaries of wetlands (including Wetland (W), Prior Converted Cropland (PC) and Artificial Wetland (AW)) two major differences were found that were corrected with this determination.

The first major difference is that a reservoir in Field 51 of Tract 5824 had been labeled as AW in its entirety in 1992. This determination finds that approximately 61.2% of this area was mapped as meeting the definition of a hydric soil, and thus the wetland condition pre-dated the creation of the reservoir. No farming history was found within this area, therefore the correct label for this portion of the wetland area is W rather than AW. The remainder of that reservoir area remains AW.

The second major difference is that one wetland of approximately 0,2 acres within Field 1 of Tract 5826 had been omitted from the original determination. This determination corrects that error by delineating the wetland as a W.

By tract number, the corrected farm determination can be summarized as follows:

Tract 5824

- 1) 214.6 acres are determined to be Non-Wetland (NW)
- 2) 132.6 acres are determined to be Prior Converted Cropland (PC)
- 3) 33.6 acres are determined to be Artificial Wetland (AW)
- 4) 53.7 acres are determined to be Wetland (W)

Tract 5826

- 1) 167.1 acres are determined to be Non-Wetland (NW)
- 2) 17.2 acres are determined to be Prior Converted Cropland (PC)
- 3) 3.9 acres are determined to be Wetland (W)

Tract 5827

- 1) 556.7 acres are determined to be Non-Wetland (NW)
- 2) 211.6 acres are determined to be Prior Converted Cropland (PC)
- 3) 40.0 acres are determined to be Wetland (W)
- 4) 2.4 acres are determined to be Artificial Wetland (AW

HOW THIS DETERMINATION MIGHT IMPACT PERSON

The Farm Service Agency determines eligibility, including determinations of whether a Good Faith Exemption or a Third Party Conversion Exemption applies. While there are two separate and distinct wetland protection laws applicable to Texas landowners, this determination is valid only for the Wetland Conservation Provisions of the Food Security Act.

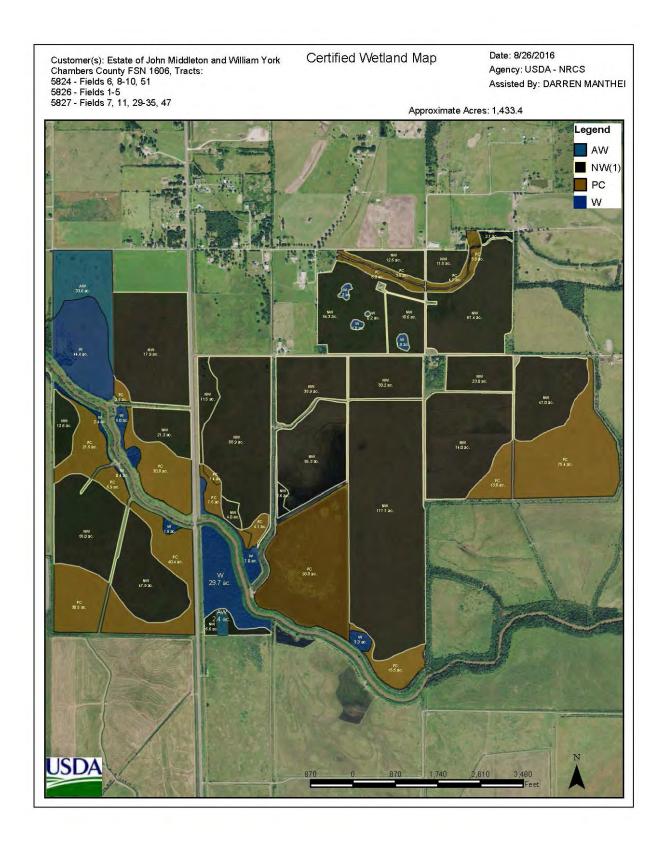
These provisions are contained in the 1985 and subsequent farm bills. They prohibit USDA program participants from converting wetlands to make production of an agricultural commodity possible. This includes conversion of wetlands for pasture, hayland or cropland use.

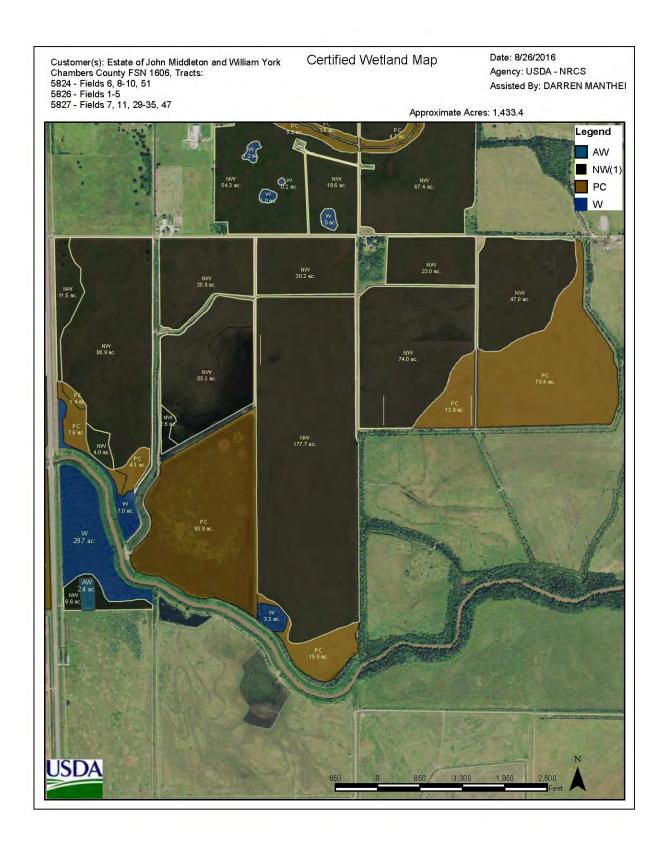
Areas mapped as Non-Wetland (NW), Prior Converted Cropland (PC) and Artificial Wetland (AW) are not subject to the wetland conservation provisions.

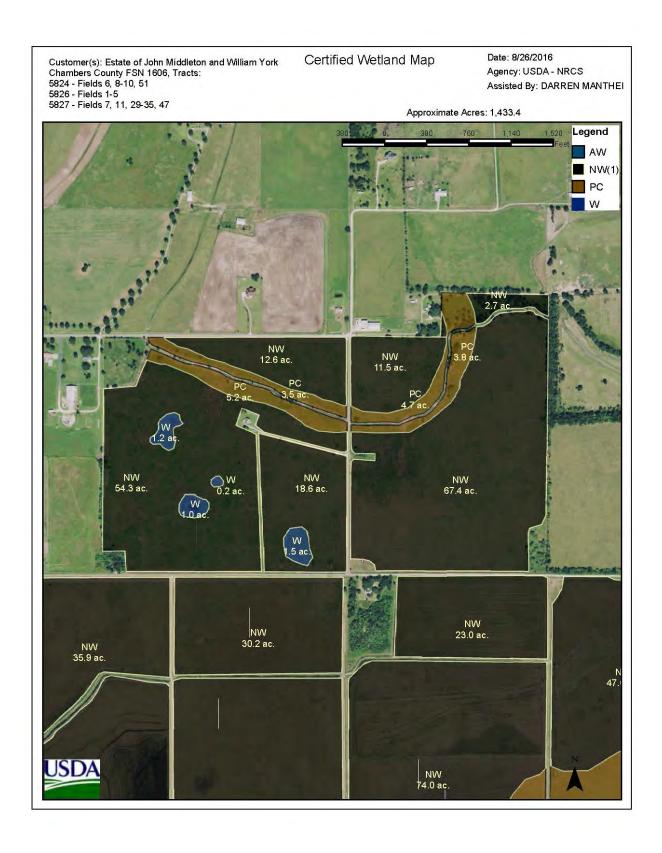
Areas mapped as Wetland (W) may not be converted. There are however exemptions to the rule as mentioned in 7 CFR 12 §12.5(b)1(iv), which include conversion for a purpose that does not make the production of an agricultural commodity possible, such as fish production, trees, vineyards, shrubs, cranbenies, livestock ponds, building and road construction. Herbaceous wetlands may also be used in their natural condition for production (over-seeding et cetera).

As a note, actions associated with waterways, tributaries, and other waters of the U.S. might be considered as an activity requiring a permit under Section 404 of the Clean Water Act. The US Army Corps of Engineers has the sole authority of permit decisions in waters of the U.S.; NRCS has no authority to offer official guidance or decisions under the Clean Water Act.

Appeals rights regarding this technical determination are provided as part of this report.











United States Department of Agriculture

Natural Resources Conservation Service

NRCS-CPA-026e 9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name	Estate of John Middleton			Request	County: Chambers
Address:	4306 Yoakum, Ste.540, Houston, TX		Date: 7-16-2016	County. Chambers	
Agency or Person Requesting Determination:		Landowner	77006	Tract No: 5824	FSA Farm No.: 1606

Section I - Highly Erodible Land

Is a soil survey now available for making a highly erodible land determination?	
Are there highly erodible soil map units on this farm?	

Fields in this section have undergone a determination of whether they are highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date
		+		

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
51	AW		33.6	9/1/2016	9/13/16
6, 8-10	NW		214.6	9/1/2016	9/13/16
6, 8-10	PC:		132.6	9/1/2016	9/13/16
51	W		53.7	9/1/2016	9/13/16

The wetland determination was completed in the Field
It was Mailed
to the person on 9/1/2016

Remarks

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

I certify that the above determinations are correct and were conducted in accordance with policies and procedures contained in the National Food Security Act Manual.

Signature Designated Conservationist	Date	
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: c=US, =0-US, Government, cu=Department of Agriculture, cn=DARREN MANTHEI, 0.9.2342,19200300,10.1.1=12001000286325 Date: 2016:09.017114659-00100	

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*DEFINITIONS OF WETLAND LABELS

AW	Artificial Welland: An area that was formerly a non-welland area under natural conditions but now exhibits welland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wellands.
CC	Commenced Conversion: A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the conversion was completed by January 1, 1995.
CPD	COE Permit with Mitigation: A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	<u>Categorical Minimal Effect</u> : A wetland that meets specific categories of conversion activities that have been determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	Converted Wetland: A wetland converted between December 23, 1985, and November 28, 1990. Production of an agricultural commodity or additional manipulation of these areas will yield UDSA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation will cause ineligibility for USDA program benefits.
CW+year	Converted Wetland + (year the conversion occurred): A wetland converted after November 28, 1990, where the USDA program participant is ineligible for benefits until the wetland is restored or mitigated unless an exemption applies.
CWNA	Converted Wetland Non-Agricultural Use: A wetland converted after November 28, 1990, to a use other than agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	Converted Wetland Technical Error: A wetland converted or commenced after December 23, 1985, based on an incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food Security Act Manual.
FW	<u>Farmed Wetland</u> : A wetland that was manipulated and planted before December 23, 1985, but still meets inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	Farmed Wetland Pasture or Hayland: A wetland that is used for pasture or haying, was manipulated and planted before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or mainternance for commodity production ceased for 5 consecutive years).
MIW	Mitigation Exemption: A converted wetland, farmed wetland or farmed wetland pasture of which the acreage, functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	Minimal Effect Exemption: A converted wetland that is exempt from the wetland conservation provisions of the Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
MWM	Mitigation Site: The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation exemption (MIW) site.
NI	Not Inventoried: An area where no wetland determination has been conducted. Label not used for certified wetland determinations completed after 2/2008.
NW	Non-Wetland: An area that does not contain a wetland. Also includes wetlands converted before December 23, 1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	<u>Prior-Converted Cropland</u> : A wetland converted to cropland before December 23, 1985, and as of December 23, 1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further drainage manipulation affects adjacent wetlands.
PC/NW	Prior Converted Cropland/Non-Wetland: An area that contains both PC and NW.
TP	Third-Party Exemption: A wetland converted after December 23, 1985, by a third party who is not associated with the participant, and the conversion is not a result of a scheme or device. A third party does not include predecessors in interest on the tract, drainage districts, or other local government entities.
W	Wetland: An area meeting wetland criteria that was not converted after December 23, 1985. These areas include farmed wetlands and farmed wetland pasture that have been abandoned.
WX	Manipulated Wetlands: A wetland manipulated after December 23, 1985, but the manipulation was not for the purpose of making production possible and production was not made possible. These areas include wetlands manipulated by drainage maintenance agreements.



United States Department of Agriculture

Natural Resources Conservation Service

NRCS-CPA-026e 9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name	Estate of John Middleton			Request	County: Chambers
Address:	4306 Yoakum, Ste.540, Houston, TX		Date: 7-16-2016		
Agency or Requesting	Person g Determination:	Landowner	77006	Tract No: 5826	FSA Farm No.: 1606

Section I - Highly Erodible Land

Is a soil survey now available for making a highly erodible land determination?	
Are there highly erodible soil map units on this farm?	

Fields in this section have undergone a determination of whether they are highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
1-5	NW		167.1	9/1/2016	9/13/16
1-4	PC		17.2	9/1/2016	9/13/16
1,5	W		3.9	9/1/2016	9/13/16

The wetland determination was completed in the Office

It was Mailed

to the person on

9/1/2016

Remarks:

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

 $I\ certify\ that\ the\ above\ determinations\ are\ correct\ and\ were\ conducted\ in\ accordance\ with\ policies\ and\ procedures\ contained\ in\ the\ National\ Food\ Security\ Act\ Manual.$

Signature Designated Conservationist	Date	
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: c=US, o=US. Government, ou=Department of Agriculture, cn=DARREN MANTHEI, 0,9.2342,19200300.100,1,1=12001000286325 Date: 2016.09.01 11:3648-05'00'	

*DEFINITIONS OF WETLAND LABELS

AW	Artificial Wetland: An area that was formerly a non-wetland area under natural conditions but now exhibits wetland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wetlands.
CC	Commenced Conversion: A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the
CPD	conversion was completed by January 1, 1995. COE Permit with Mitigation: A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	Categorical Minimal Effect: A wetland that meets specific categories of conversion activities that have been determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	Converted Wetland: A wetland converted between December 23, 1985, and November 28, 1990. Production of an agricultural commodity or additional manipulation of these areas will yield UDSA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation will cause ineligibility for USDA program benefits.
CW+year	Converted Wetland + (year the conversion occurred): A wetland converted after November 28, 1990, where the USDA program participant is ineligible for benefits until the wetland is restored or mitigated unless an exemption applies.
CWNA	Converted Wetland Non-Agricultural Use: A wetland converted after November 28, 1990, to a use other than agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	Converted Wetland Technical Error: A wetland converted or commenced after December 23, 1985, based on an incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food Security Act Manual.
FW	<u>Farmed Wetland</u> : A wetland that was manipulated and planted before December 23, 1985, but still meets inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	Farmed Wetland Pasture or Hayland: A wetland that is used for pasture or haying, was manipulated and planted before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
MIW	Mitigation Exemption: A converted wetland, farmed wetland or farmed wetland pasture of which the acreage, functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	Minimal Effect Exemption: A converted wetland that is exempt from the wetland conservation provisions of the Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
MWM	Mitigation Site: The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation exemption (MIW) site.
NĬ	Not Inventoried: An area where no wetland determination has been conducted. Label not used for certified wetland determinations completed after 2/2008.
NW	Non-Wetland: An area that does not contain a wetland. Also includes wetlands converted before December 23, 1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	<u>Prior-Converted Cropland:</u> A wetland converted to cropland before December 23, 1985, and as of December 23, 1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further drainage manipulation affects adjacent wetlands.
PC/NW	Prior Converted Cropland/Non-Wetland: An area that contains both PC and NW.
TP	Third-Party Exemption: A wetland converted after December 23, 1985, by a third party who is not associated with the participant, and the conversion is not a result of a scheme or device. A third party does not include predecessors in interest on the tract, drainage districts, or other local government entities.
W	Wetland: An area meeting wetland criteria that was not converted after December 23, 1985. These areas include farmed wetlands and farmed wetland pasture that have been abandoned.
WX	Manipulated Wetlands: A wetland manipulated after December 23, 1985, but the manipulation was not for the purpose of making production possible and production was not made possible. These areas include wetlands manipulated by drainage maintenance agreements.



United States Department of Agriculture

Natural Resources Conservation Service

NRCS-CPA-026e 9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name Address:	Estate of John Middleton			Request	County: Chambers	
	4306 Yoakum, Ste.540, Houston, TX		Date: 7-16-2016			
Agency or Requesting	Person g Determination:	Landowner	77006	Tract No: 5827	FSA Farm No.: 1606	

Section I - Highly Erodible Land

Is a soil survey now available for making a highly erodible land determination?	
Are there highly erodible soil map units on this farm?	

Fields in this section have undergone a determination of whether they are highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
47	AW		2.4	9/1/2016	9/13/16
7, 29-35, 47	NW		556.7	9/1/2016	9/13/16
7,11,30,32,34,47	PC:		211.6	9/1/2016	9/13/16
47	W		40.0	9/1/2016	9/13/16

The wetland determination was completed in the Office It was Mailed to the person on 9/1/2016

Remarks:

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

 $I\ certify\ that\ the\ above\ determinations\ are\ correct\ and\ were\ conducted\ in\ accordance\ with\ policies\ and\ procedures\ contained\ in\ the\ National\ Food\ Security\ Act\ Manual.$

Signature Designated Conservationist	Date		
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: <-US, o=US, Government, ou=Department of Agriculture, cn=DARREN MANTHEI, 0.9.2342.19200300.100.1.1=12001000286325 Date 2016.09.01 11/4355-0.5100′		

*DEFINITIONS OF WETLAND LABELS

AW	Artificial Wetland: An area that was formerly a non-wetland area under natural conditions but now exhibits wetland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wetlands.
CC	Commenced Conversion: A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the
cc	conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the
ann	conversion was completed by January 1, 1995.
CPD	COE Permit with Mitigation: A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	Categorical Minimal Effect: A wetland that meets specific categories of conversion activities that have been
	determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	Converted Wetland: A wetland converted between December 23, 1985, and November 28, 1990. Production of an
	agricultural commodity or additional manipulation of these areas will yield UDSA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these
	instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation
	will cause ineligibility for USDA program benefits.
CW+year	Converted Wetland + (year the conversion occurred): A wetland converted after November 28, 1990, where the
Ситусы	USDA program participant is ineligible for benefits until the welland is restored or mitigated unless an exemption applies.
CWNA	
CWNA	Converted Wetland Non-Agricultural Use: A wetland converted after November 28, 1990, to a use other than
CHARTIE	agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	Converted Wetland Technical Error: A wetland converted or commenced after December 23, 1985, based on an
	incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food
	Security Act Manual
FW	Farmed Wetland: A wetland that was manipulated and planted before December 23, 1985, but still meets inundation
	or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as
	long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	Farmed Wetland Pasture or Hayland: A wetland that is used for pasture or haying, was manipulated and planted
	before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and
	maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or
	maintenance for commodity production ceased for 5 consecutive years).
MIW	Mitigation Exemption: A converted wetland, farmed wetland or farmed wetland pasture of which the acreage,
	functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	Minimal Effect Exemption: A converted wetland that is exempt from the wetland conservation provisions of the
	Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a
	minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the
	watershed.
MWM	Mitigation Site: The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation
	exemption (MIW) site.
NI	Not Inventoried: An area where no wetland determination has been conducted. Label not used for certified wetland
	determinations completed after 2/2008.
NW	Non-Wetland: An area that does not contain a wetland. Also includes wetlands converted before December 23,
14.44	1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	Prior-Converted Cropland: A wetland converted to cropland before December 23, 1985, and as of December 23.
re	
	1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not
	subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further
2/4/4/2001	drainage manipulation affects adjacent wetlands.
PC/NW	Prior Converted Cropland/Non-Wetland: An area that contains both PC and NW.
TP	Third-Party Exemption: A wetland converted after December 23, 1985, by a third party who is not associated with
	the participant, and the conversion is not a result of a scheme or device. A third party does not include
	predecessors in interest on the tract, drainage districts, or other local government entities.
W	Wetland: An area meeting wetland criteria that was not converted after December 23, 1985. These areas include
	farmed wetlands and farmed wetland pasture that have been abandoned.
WX	Manipulated Wetlands: A wetland manipulated after December 23, 1985, but the manipulation was not for the
	purpose of making production possible and production was not made possible. These areas include wetlands
	manipulated by drainage maintenance agreements.
	A STATE OF THE PROPERTY OF THE

Thursday, August 04, 2016 RE: Decision effective as of January 23, 1992

Estate of John Middleton 4306 Yoakum, Suite 540 Houston, Texas 77006

William York P.O. Box 354 Stowell, Texas 77661

Request for Review - Certified Wetland Determination

Chambers County FSN 1606 Tract 5824

To all, including Electronic CC recipients:

Person, as defined in Title 7 Code of Federal Regulations Part 12 (7CFR12) § 12.2, submitted a Request for Review of a Certified Wetland Determination on Chambers County USDA FSN 1606 Tract 5824, Fields 9, 10 and 51 via a form CPA-38. The determination being cited was final as of January 23, 1992. I have reviewed the request and the report, and respond as follows:

Pursuant to the National Food Security Act Manual (NFSAM) Section 514.1 C (2), 7CFR12 § 12.30(c) (6) and 16 U.S.C. Sec. 3822(a) (4), a person may request review of a final certified wetland determination when:

- 1) If NRCS concurs with an affected person that an error exists in the current wetland determination.
- 2) A person must make all requests...in writing, stating...where NRCS error is cited...
 - a. what the error is, and
 - b. how it affects the final certified wetland determination validity.

The request cites and delineates mapping errors, which were based on the mapping convention in use at the time (verbiage from the request is "less accurate mapping"). The map associated with the request also cites a field that had not been delineated (Field 51) within the Farm, when the original determination was a "Total Farm Determination" according to the original CPA-026e. I have reviewed the report and the request, and concur that there are errors in the mapping of wetland boundaries as described in the request. Because the question of validity is tied to the procedures used for the farm, I will re-issue the farm determination using current methods as outlined in the National Food Security Act Manual's Wetland Identification Procedures, as supported by the Corps of Engineers Wetland Delineation Manual (NRCS-adopted parts only) and the associated Regional Supplement (as needed). Because new acreage will be added to the farm determination (Field 51) the determination will be issued as a Preliminary Determination with informal appeal rights before it is certified as a Final Technical Determination (which will include final appeal rights).

Sincerely,

Darren K. Manthei 979-846-0757 ext. 106 Area Wetland Specialist darren.manthei@tx.usda.gov

Electronic CC: David S, Manthei – NRCS District Conservationist – Anahuac, TX
Phillip Stewart – NRCS Resource Team Leader – Liberty, TX
H. Dan Keesee – NRCS State Wetland Specialist – Temple, TX
Cliff J. Sunda – Vice President-Operations – Wildwood Env. Credit Company, LLC



Environmental Services, Inc.

26 July 2016

Mr. Billy York PO Box 354 Stowell, Texas 77661

RE: Estate of John Middleton, 241-Acre Parcel Chambers County, Texas Wetland Determination HJN 150158 WD

Dear Mr. York,

Horizon Environmental Services, Inc. (Horizon) has evaluated the referenced site for potential wetland and non-wetland areas to aid with the property's applicability in the USDA-NRCS Wetland Reserve Program. This letter and attachments provide the results of our investigation. The parcel has been subject to rice farming for many decades, including last year. This has resulted in altered hydrology, plant communities, and soils disturbance (plowing) that has artificially created wetland characteristics throughout the site. As such, the delineation process has focused not only on the subject site, but on nearby sites of similar topography and position to Spindletop Bayou that have not been recently farmed to use as reference sites. Historical aerial photography, LIDAR topography data, previous NRCS wetland determination information and data from the reference site have been relied on to help make this determination.

Project Location and General Description

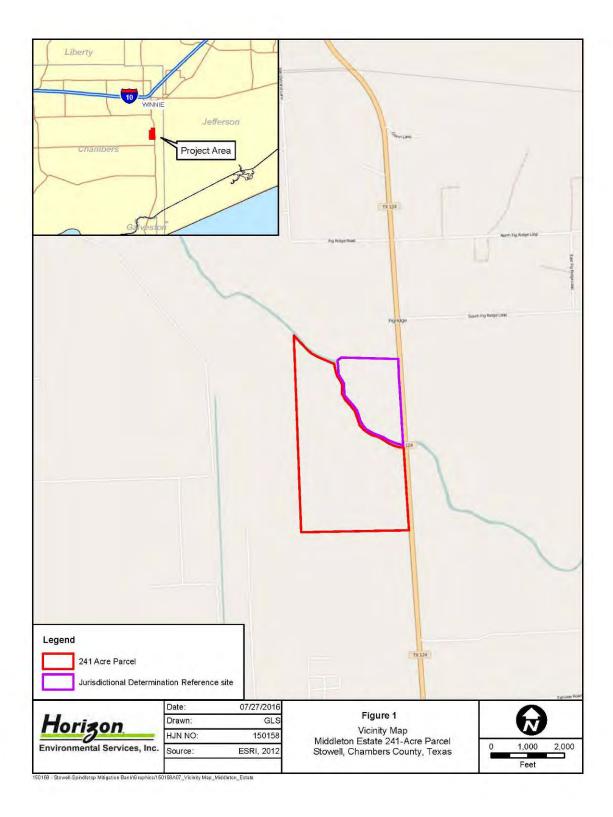
The subject Property consists of an approximately 241-acre tract of rice farm land approximately located 2.5 miles south of Stowell, Texas, at the southwest corner of the SH 124 Bridge over Spindletop Bayou, Chambers County, Texas (see Figure 1). It is bounded on the north by Spindletop Bayou, on the east by SH 124, and on the west and south by additional farmland. Current and historical use of the Property has been rice farming. The Global Positioning System (GPS) location is approximately 29.751825°Latitude and -94.381530°Longitude.

Middleton Estate 241-ac AJD.draft.doc

CORPORATE HEADQUARTERS

1507 S Interstate 35 ★ Austin, Texas 78741-2502 ★ 512.328.2430 ★ www.horizon-esi.com

Certified WBE/HUB/DBE/SBE





The Property's vegetation is characteristic of recently farmed rice fields in the area, being dominated, for the most part, by pioneer wetland plants including species of *Juncus*, *Cyperus*, *Eleocharis*, *Persicaria*, *Alopecurus*, *Oryza*, *Ludwigia*, and others. One small area of remnant forested wetland is present adjacent to Spindletop Bayou in the northeast part of the site and has not been previously rice farmed.

Wetland Determination

This determination of wetlands and other water features consisted of a pre-field literature review and a site assessment conducted according to the general methodologies utilized by the NRCS and U.S. Army Corps of Engineers (USACE) in making wetland determinations under their respective authorities and regulations. Due to the post-farming condition of the site with significant alterations to site vegetation, soils, and hydrology, the determination relied heavily on historical aerial photo review, comparison of other mapping information (soils, National Wetland Inventory mapping, and the previous NRCS Certified Determination from 1992), as well as the field data from the reference site that has not been farmed in over 10 years.

Pre-field Evaluation

The literature evaluation included a review of the following sources of information:

- US Geological Survey (USGS) topographic maps (Hamshire, Texas, 1994, Stanolind Reservoir, Texas, 1994, Stowell, 1993, Texas, and Whites Ranch, 1993).
- 2. Department of the Interior, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map (Wetland mapper accessed 12 July 2016),
- Black and white and color historic aerial photography (General Land Office (31 December 1937 and 31 December 1969, 31 December 2008), USGS (21 February 1995), US Department of Agriculture (USDA) Farm Service Agency (27 June 2005), and Google Earth (3 October 2014),
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey information (Web Soil Survey, accessed 12 July 2016).
- 5. Previous NRCS Wetland Determination, 23 January 1992.

The above mentioned documents were utilized to evaluate the subject site for potential wetlands or non-wetlands that would require further assessment during the field investigation. The literature evaluation determined that there was a potential for wetland areas within the Property. The USGS topo map indicates that the subject site exhibits the highest elevations on the western and central portions of the site with lower elevation areas along Spindletop Bayou, Highway 124, and the southern property line. NRCS soil maps indicate the predominant soil present within the property along Spindletop Bayou and Highway 124 is Beaumont clay, which is included in the List of Hydric Soils of Texas. Soils within the western and central portions of the site (higher elevation)



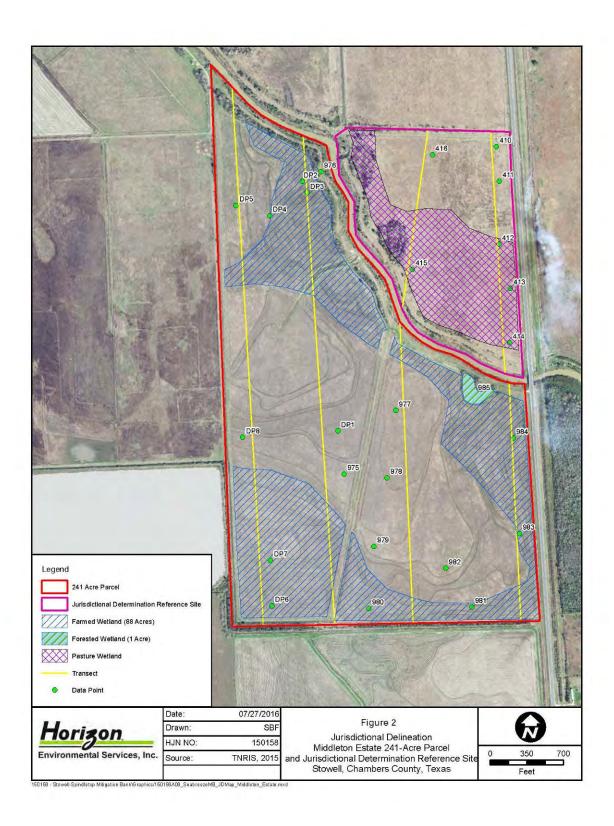
are Meaton-Levac complex soils which may have hydric inclusions. The southern portion of the site is League clay that is non-hydric. Historic and current aerial photographs indicated potential wetlands associated with Spindletop Bayou on the northern portion of the site and along the eastern and southern periphery. Two areas of apparent non-wetland are visible on various aerials in the central and northwestern portions of the site. Those areas of non-wetland are also supported by the soils map, NWI map, USGS topo map, and the previous NRCS wetland determination. The soils map, NWI map, USGS topo map, and various years of aerial photography are provided in Attachment A.

The NRCS made a certified Highly Erodible Land and Wetland Determination on the Property in 1992 for purposes of Food Securities Act compliance for farming practices. The subject parcel was classified as non-wetland (N) and prior converted (PC) (see Attachment B). The non-wetland areas identified by the NRCS generally correspond with the areas of non-wetland we preliminarily identified from historical aerial photography and are also supported by the soils map, topo map, and the NWI map.

Field Reconnaissance

Horizon personnel conducted a field investigation on 6 April 2016 to assess the site for potential wetlands and other water features. A total of 17 sample points were performed throughout the referenced Property to try to confirm the existing literature and map analysis information (Figure 2). Field data was recorded on USACE Field Data Sheets that are included in Attachment C.

The site was found to still have intact rice farming levees from the previous year's rice cropping and wetland vegetation was ubiquitous throughout the site due to the artificial hydrology that had been maintained during the rice farming. The winter and spring preceding the field investigation had seen very heavy rainfall rates, so the intact levees were artificially maintaining hydrology on the site. The placement and spacing of rice field levees are a good indication of topography and natural drainage patterns. Rice levees in close proximity to each other indicate sloping landscape topography. The evident rice levees on the subject site on recent and historical aerial photography (Attachment B) confirm the higher elevation areas (western and central portions) of the site. Spindletop Bayou is located along the north boundary of the Property and has been deepened over the years for flood control with resulting high spoil banks. The bayou no longer communicates with the site except in very extreme events, but drainage from the site enters the bayou via several small drainage outlets (downspout culverts through the spoil banks).



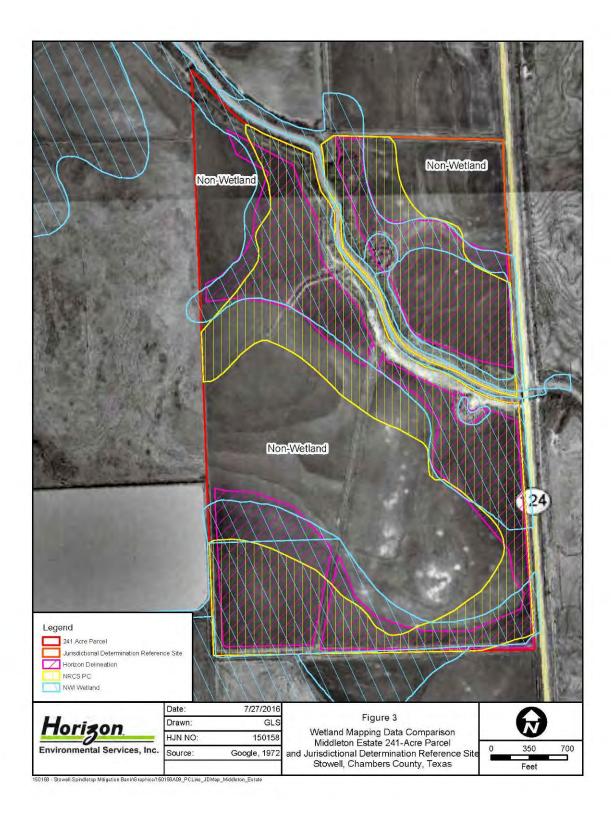


Based on the field investigation, wetland boundaries could not clearly be identified. While elevational differences were visible, the remnant characteristics of rice farming (levees and adventitious vegetation) masked the true nature of the site. It was decided to use a reference site of similar topography and juxtaposition to Spindletop Bayou that had not been recently rice farmed.

A reference site was selected on the north side of Spindletop Bayou just north of the subject property. The reference site was determined similar based on aerial photography, topographic information, and NVVI mapping. Based on historic aerials, the reference site had not been farmed since about 2004-2006. Based on topography information, NVVI mapping, NRCS wetland determination information, and aerial analysis, it was determined that wetlands would likely exist on this site in proximity to Spindletop Bayou. An additional field reconnaissance on this site was conducted on 13 May, 2016. Transects and data points were established in a north-south orientation to verify wetland boundaries. The transects and data points are indicated on Figure 2 and data sheets are provided in Attachment C. The previous NRCS wetland determination is included in Attachment B.

The reference site exhibited relatively natural vegetation characteristics since approximately 10 years or more had passed since the previous farming activity. Hydrology and topography appeared to also be relatively natural since all previous rice field levees had been leveled. Only the spoil bank along Spindletop Bayou appeared to artificially influence hydrology on the site nearest the levee where artificial impoundment has occurred.

Transects were established perpendicular to Spindletop Bayou and data points were taken at intervals along or proximal to the transects (Figure 2). Data sheets are provided in Attachment C. Wetland characteristics were noted in the southern portion of the site (Figure 2). The assessment of the reference site generally confirms the validity of the aerial, topo, soils, NWI, and NRCS information used to delineate the primary site. An overlay of these data sources is provided in Figure 3.





Summary

Based on the pre-field literature review and field investigations, Horizon determined that there exists on the site historically-farmed wetlands (potential PC) comprising 88 acres and one non-farmed, forested wetland encompassing approximately 1 acre. Total wetland area on the property is 89 acres.

If you have any questions or require additional information please contact me at 512-328-2430.

Sincerely,

C. Lee Sherrod Vice President

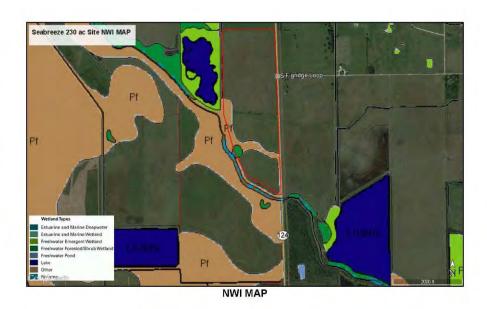
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ATTACHMENT A

EXISTING MAP DATA









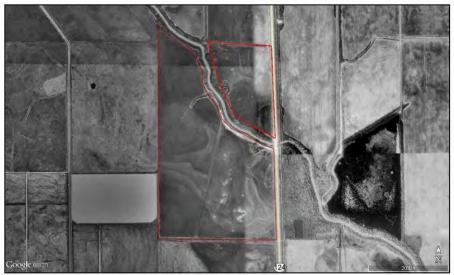


FEMA MAP



1968 AERIAL





1990 AERIAL



1995 AERIAL





2011 AERIAL



2013 AERIAL



ATTACHMENT B

NRCS CERTIFIED DETERMINATION

UNITED STATES DEPARTMENT OF AGRICULTURE

SOTI. CONSERVATION SERVICE

1222 MAIN ST. P.O. BOX 819 ANAHUAC, TX 77514

January 23, 1992

T. F. Jenkins Box 145 Winnie, TX 77665

Dear Mr. Jenkins:

This letter regards the AD-1026 "Highly Erodible Land and Wetland Conservation Certification" form we received from the ASCS dated 3/30/87 We have made a highly erodible land and wetland determination for your farm (ASCS farm number 27 tract # 330). This completes the determination for the entire farm. Please check the maps enclosed carefully to ensure that the entire farm is included and a determination has been made. All cropland, potential cropland, and areas adjacent to cropland which could be converted to cropland must have a determination made. Two copies of our determination recorded on form SCS-CPA-26 and a photocopy map are enclosed for your use. If you note any areas left out or disagree with a determination you must contact this office within fifteen days of the receipt of this letter.

We have also forwarded a copy of the SCS-CPA-26 and map to the county ASCS office.

There are no Highly Erodible soils identified on the

Fields and unnumbered areas that are identified as Prior Converted Wetlands "P C" are not subject to the Food and Security Act and can be drained, altered or modified so long as they are PLANTED AT LEAST ONCE EVERY FIVE YEARS.

Fields that are identified as Wetlands "W" or Farmed Wetlands "FW" should not be altered to plant any annual crop unless a determination is made that such alteration is in compliance with the 1985 Food and Security Act. If you have a question here you must contact this office prior to any work being done on the wetland area. Wetlands cannot be manipulated in any way including the removal of trees, draining, or filling. Conversion of wetlands to any other use such as roads, buildings, pasture, etc. or maintenance of existing drainage systems must be approved in advance.

Fields that are identified as Non Hydric "N" are not subject to Food and Security Act.

Wetland determinations may not have been made on any of

the "OUT" areas, such as roads, ditches, and runways. If you intend to bring any of these areas into crop production please contact us ahead of time to obtain a determination.

NOTE: If you intend to convert additional land to cropland or alter any wetlands, you must initiate another Form AD-1026 at the local office of the ASCS. Abandonment is where land has not been cropped for 5 years. You should inform SCS if you plan to produce an agricultural commodity on abandoned wetlands.

If you have any questions, please call (409) 267-3581. Our office is open weekdays between seven and four thirty. A percentage of my work is done in the field so you should call before coming by.

Sincerely,

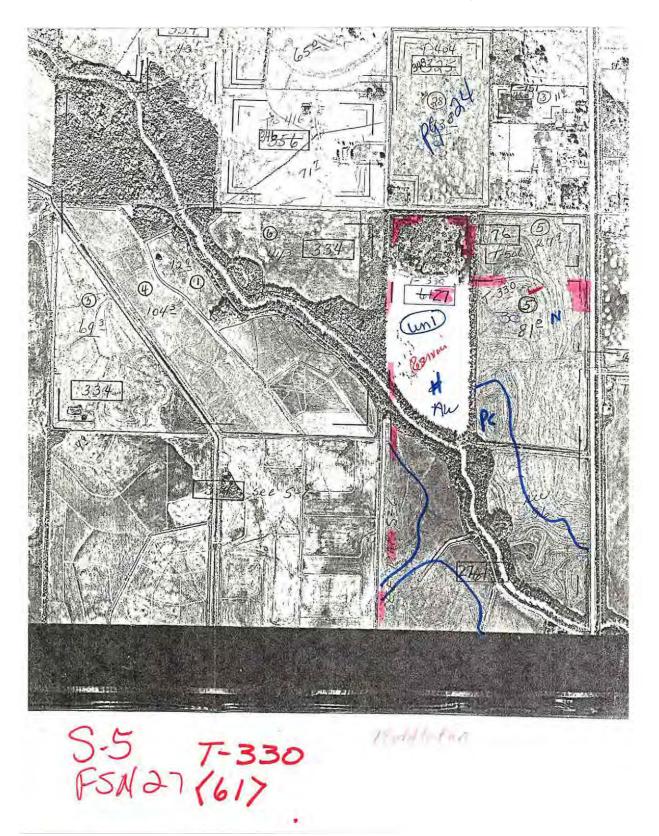
Jess J. Jackson Jr. District Conservationist

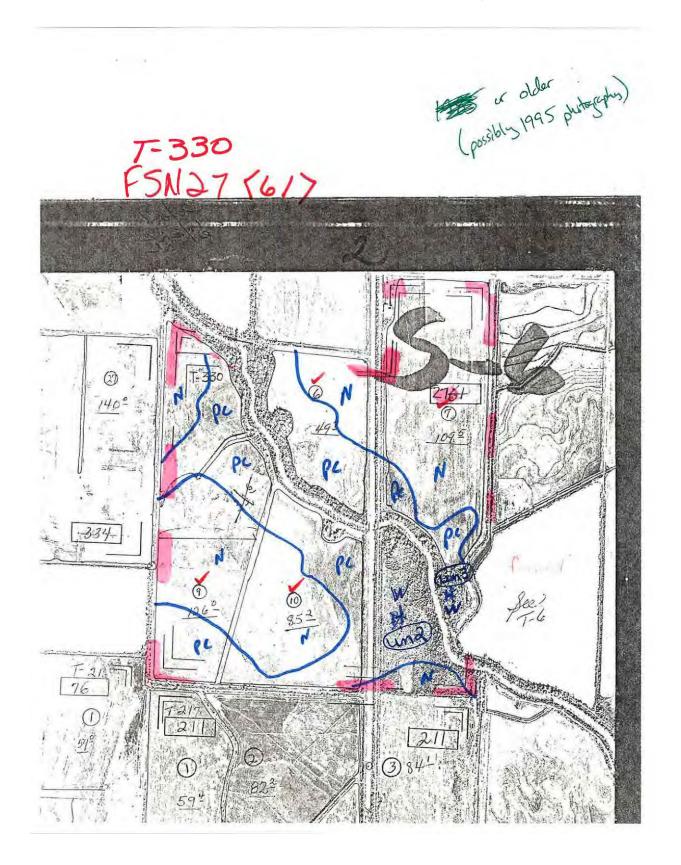
cc: Chambers County ASCS Anahuac SCS

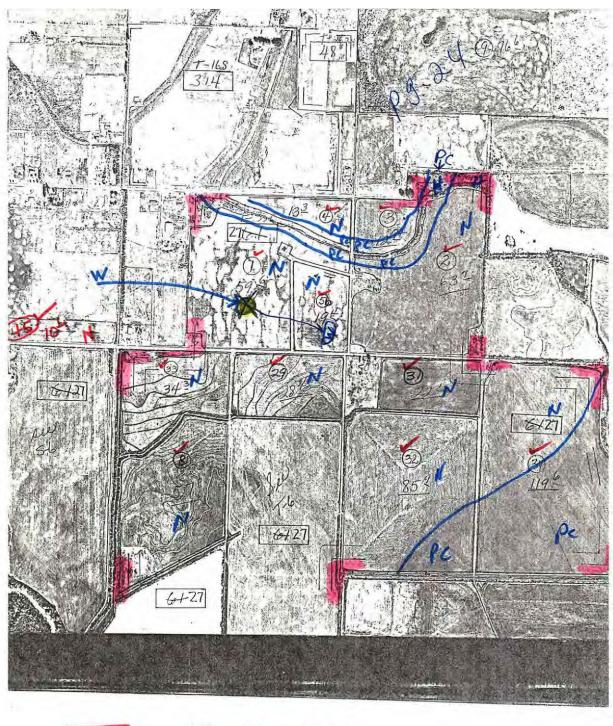
U.S.D.A. SCS-CPA-026	Name and Address of Person	2. Date of Reques	t .
Soil Conservation Service (June 91)	7. F. JERKINS		
HIGHLY ERODIBLE LAND AND WETLAND	Box 145	3. County	
CONSERVATION DETERMINATION	Winnie. Tx 17665	Chambe	15
4. Name of USDA Agency or Person Requesting Determination	A SCS 5, Farm No. and Tract No.	330	
SEC	TION I - HIGHLY ERODIBLE LAND	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Is sail survey now available for making a highly erodible land	d determination? Yes 12 No 🗆	FIELD NO.(s)	TOTAL ACRES
	es No D		
 List highly erodible fields that, according to ASCS records, we crop year during 1981-1985. 	vere used to produce an agricultural commodity in any		
 List highly erodible fields that have been or will be converted according to ASCS records, were not used for this purpose in enrolled in a USDA set-aside or diversion program. 			
10. This Highly Erodible Land determination was completed in			
	SECTION II - WETLAND	T FIFT B VIO.	Tauan
11. Are there hydric soils on this farm? Yes N	• 🗆	FIELD NO.(s)	TOTAL ACRES
12. Westands (W), including abandoned westands, or Farmed V		ling, lin 3,	
Wetlands may be farmed under natural conditions. Farmed farmed and maintained in the same manner as they were p abandoned.	d Wetlands and Farmed Wetlands Pasture may be wfor to December 23, 1985, as long as they are not	lin4, 56	15.5
13. Prior Converted Cropland (PC). Wetlands that were conve	rted prior to December 23, 1985. The use, management,	1,2,3,4,5,6,7	
Prior Converted Cropland (PC). Wetlands that were converted cropland (PC) and the area reverts to wetland as a result of abandonment.	e not subject to the wetland conservation provisions unless	9,10,11, 30,32,	362
to the wedand conservation provisions.	on-induced wetlands. These wetlands are not subject	unl	60
Minimal Effect Wetlands (MW). These wetlands are to be f at the time the minimal-effect determination was made.	armed according to the minimal-effect agreement signed		
 Mitigation Wetlands (MIW). Wetlands on which a person is converted between December 23, 1985 and November 28, 	actively mitigating a frequently cropped area or a wetland		
 Restoration with Violation (RVW-year). A restored wedard November 28, 1990, or the planting of an agricultural commit 	that was in violation as a result of conversion after odity or forage crop.		
 Restoration without Violation (RSW). A restored wetland or November 28, 1990, on which an agricultural commodity ha 	is not been planted.		
 Replacement Wetlands (RPW), Wetlands which are conve- where the wetland values are being replaced at a second sit 	rted for purposes other than to increase production, e.		
 Good Faith Wetlands (GFW+year). Wetlands on which AS(wetland has been restored. 			
 Converted Wetlands (CW). Wetlands converted after Dece- year that an agricultural commodity is planted on these Conv 	rented Wetlands, you will be ineligible for USDA benefits.		
 Converted Wetland (CW+year). Wetlands converted after I program benefits until this wetland is restored. 	lovember 28, 1990. You will be ineligible for USDA		
 Converted Wetland Non-Agricultural use (CWNA). Wetland cranberries, vineyards or building and road construction. 			
 Converted Wetland Technical Error (CWTE). Wetlands that by SCS. 	were converted as a result of incorrect determination		* .
 The planned alteration measures on wetlands in fields with FSA. 	are considered	maintenance and are	in compliance
 The planned alteration measures on wetlands in fields installed will cause the area to become a Converted Wetland 	are not o	onsidered to be main	tenance and if
27. The wetland determination was completed in the office	field ☐ and was delivered ☐ mailed ☐ the person	on 2-24-	92
28. Remarks. Jalal Jam determi	nation Complete	***	-
29. I certify that the above determination is correct and adequate for eligibility for USDA program benefits, and that wetland hydrology, hydrophytic vegetation under normal circumstances exist on all are Wetlands: Farmed Wetlands and Farmed Wetlands Pasture.	hydric sails and	onist 31. Dat	90

U.S.D.A. SCS-CPA-026 Soil Conservation Service (1-86)	T.F. J.	Address (of Person	3-30-87	
HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION	4하다 하다 있다면 하다면 하다면 하다면 하다면 하다면 하다면 하다면 하다면 하다면 하			3. County Chambers	
4. Name of USDA Agency or Person Requesting Determination		5. Farm 2	No. and Tract No.	1	
SECTION I - HIGHLY	ERODIBLE				
5. Is sell survey now evailable for making a highly erodible land determination?	Yes	No	Field No.(s)	Total Acres	
7. Are there highly erodible soil map units on this farm?		/			
 List highly eradible fields that, according to ASCS records, were used to produce an agricultural commodity in any crop year during 1981-1985. 					
 List highly enotible fields that have been or will be converted for the production agricultural commodities and, according to ASCS records, were not used for this purpose in any crop year during 1981-1985; and were not enrolled in a USDA serveside or diversion program. 	of				
NOTE: If you have highly erodible cropland fields, you may need to have a con local office of the Soil Conservation Service.		devalops	S for these fields. For further	r information, contact th	
SECTION II –	WETLAND				
11. Are there hydric solls on this farm?	Yes	No	Field No.(s)	Total Wetland Acres	
List field numbers and acres, where appropriate, for the following EXEMPTED WETLANDS:					
12. Wetlands (W), including abandoned wetlands, or Farmed Wetlands (FW). Wetlands may be farmed under natural conditions. Farmed Wetlands may be farmed and maintained in the same manner as they were prior to December 23, 1985, as long as they are not abandoned.			1	1	
13. Prior Converted Wetlands (PC) - The use, management, drainage, and elteration of prior converted wetlands (PC) are not subject to FSA unless the area reverts to wetland as a result of ebandonment. You should inform SCS of any area to be used to produce an agricultural commodity that has not been cropped, managed, or maintained for S years or more.			See CPA 026A		
 Artificial Wetlands (AW) - Artificial Wetlands includes irrigation induced wetland These Wetlands are not subject to FSA. 	Js.				
 Minimal Effect Wetlands (MW) - These watlands are to be farmed according to the minimal effect agreement signed at the time the minimal effect determination was made. 	16				
NON-EXEMPTED WETLANDS:		1			
15. Converted Wetlands (CW) - In any year that an agricultural commodity is planted on these Converted Wetlands, you will be ineligible for USDA benefits. If you believe that the conversion was commenced before December 23, 1985, or that the conversion was caused by a third party, contect the ASCS office to request a commenced or third party determination.					
17. The planned siteration measures on wetlands in fields with FSA.			are considered maintenan	ce and are in compliance	
18. The planned elteration measures on wetlands in fields will cause the area to become a Converted Watland (CW). See item 16 for information of the property of the proper	nation on CW.		are not considered to be mai	ntenance and If installed	
19. This wetland determination was completed in the: Office Field		_			
20. This determination was: Delivered Mailed To the Person on Dete: NOTE: If you do not agree with this determination, you may request a reconsideration is a prerequisite for any further appeal. The request for the reco	nsideration mu	st be in v	riting and must stare your re	asons for the convest	
the producer's copy of this form for more information on appeals procedure. NOTE: If you intend to convert additional land to cropland or alter any watlan Abandonment is where land has not been cropped, menaged, or maintained for 8	is mailed to or	otherwis	made available to you. Plaa	sa see reverse side of	
agricultural commodity on abandoned wetlands. 21. Remarks Total farm determination					
22. Signature of SCS District Conservationist			23. Date 2-	28-88	

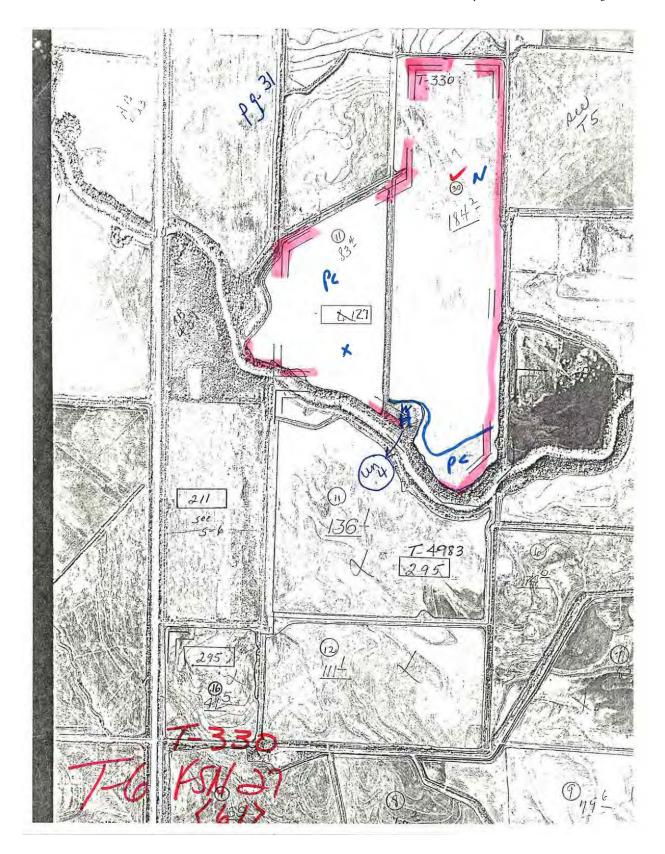
SCS Copy

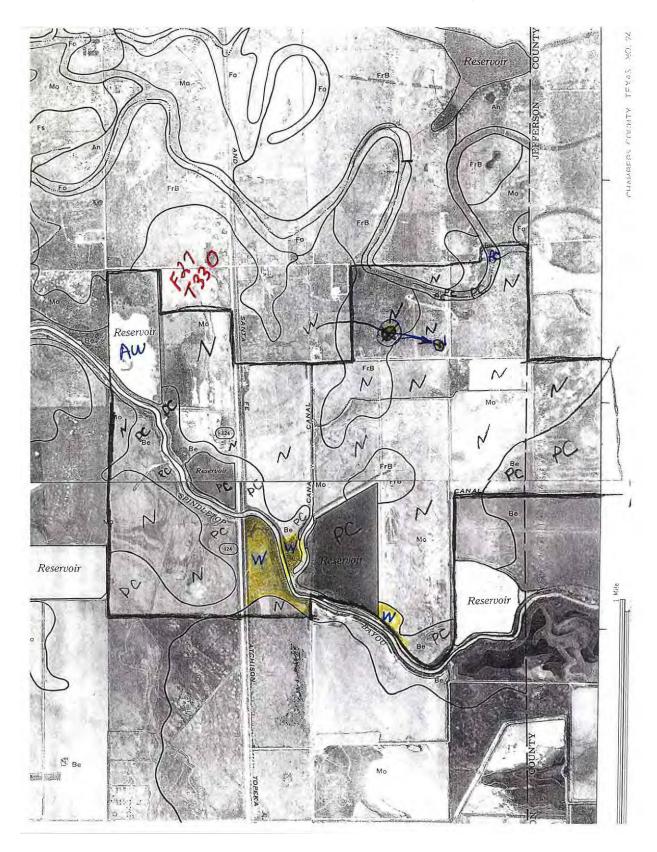






7-5 F5N27 (61) 7-330







Mr. Billy York HJN 150158 WD 26 July 2016 Page 3

ATTACHMENT C

DATA SHEETS

Middleton Estate 241-ac AJD draft.doc

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Te	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 100 100 100 100 100 100 100 100 100 10
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none):	liked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.751321° Long: -94.382328	
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percentage	ent slopes, rarely flooded NW	I classification: None
Are climatic / hydrologic conditions on the site typical for this		plain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X s		stances" present? Yes No X
		ny answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations, tra	nsects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	O Is the Semulad Avec	
	Is the Sampled Area within a Wetland?	res No X
Wetland Hydrology Present? Yes X N	o Within a Wetland?	res No 77
Remarks:		
Sampling point is within a rice field tha	t was farmed in 2015. Levees st	ill remain. Vegetation is
indicative of recent rice farming with no		
repeatedly plowed and artificially flood		CH WOLLDWING TOOK
	2.27	
HYDROLOGY		
Wetland Hydrology Indicators:		ary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all		face Soil Cracks (B6)
The first of the f		rsely Vegetated Concave Surface (B8)
		inage Patterns (B10)
		ss Trim Lines (B16)
	· (1) : (1)	-Season Water Table (C2)
		yfish Burrows (C8)
		uration Visible on Aerial Imagery (C9) omorphic Position (D2)
		illow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		C-Neutral Test (D5)
Water-Stained Leaves (B9)		nagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No De	pth (inches):	
Water Table Present? Yes No X De	pth (inches):	
	pth (inches): Wetland Hydrolog	y Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, a		
Describe Necorded Data (Siream gauge, monitoring well, o	terial priords, previous inspections), il available.	
Remarks:		
Area has been artificially flooded for ri-	ce farming	

US Army Corps of Engineers

		Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
		Thermore	8 1	Number of Dominant Species That Are OBL, FACW, or FAC:7 (A)
			_	(V
			_	Total Number of Dominant Species Across All Strata: 7 (8)
			_	Species Across All Strata: (B)
A		-		Percent of Dominant Species
i:				That Are OBL, FACW, or FAC: 100% (A/
B		-		Prevalence Index worksheet:
7			9	Washington Statement and Authorities and Statement and Sta
3		÷,	-	Total % Cover of: Multiply by:
	0%	= Total Cov	er	OBL species x 1 =
50% of total cover: 0%				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)		(800) - 21 10		FAC species x 3 =
	5	Vec	FACW	FACU species x 4 =
				UPL species x 5 =
				Column Totals: 0 (A) (E
n				V. 9
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
S.		-	8	X 1 - Rapid Test for Hydrophytic Vegetation
1		-	8	2 - Dominance Test is >50%
				2 - Dominance Test is >30%
		3	-	□ a presidence ledende conf
	5%	= Total Cov		☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ Problematic Hydrophytic Vegetation (Explain)
50% of total cover;3%	5%	= Total Co	er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover; 3% Herb Stratum (Plot size:)	5%	= Total Co	er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover; 3% Herb Stratum (Plot size;) Oryza saliva	20% of	= Total Cover	/er 	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover;	20% of	= Total Cover	obl	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover;	20% of 15 30 10	= Total Cover total cover Yes	OBL OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover; 3% Herb Stratum (Plot size;) 1, Oryza sativa 2, Eleocharis parvula 3, Eleocharis celtulosa 4, Juncus brachycapus	20% of 15 30 10 15	= Total Cover total cover Yes Yes Yes Yes	OBL OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover;	20% of 15 30 10 15 5	Total Cover Yes Yes Yes Yes No	OBL OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover;	20% of 15 30 10 15 5 10	Total Cover Yes Yes Yes Yes No Yes	OBL OBL FACW OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les
50% of total cover;	20% of 15 30 10 15 5 10 10	Total Cover Yos Yes Yes Yes No Yes Yes	OBL OBL FACW FACW OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover;	20% of 15 30 10 15 5 10 10 5	Total Cover Yes Yes Yes Yes No Yes	OBL OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
50% of total cover:	20% of 15 30 10 15 5 10 10 5	Total Cover Yos Yes Yes Yes No Yes Yes	OBL OBL FACW FACW OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	5% 20% of 15 30 10 15 5 10 10 5 5	Total Cover Yos Yes Yes Yes No Yes Yes	OBL OBL FACW FACW OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	5% 20% of 15 30 10 15 5 10 40 5	Total Cover Yos Yes Yes Yes No Yes Yes	OBL OBL FACW FACW OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	5% 20% of 15 30 10 15 5 10 40 5	Total Cover Yos Yes Yes Yes No Yes Yes	OBL OBL FACW FACW OBL FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	5% 20% of 15 30 10 15 5 10 10 5	Total Cover Yos Yes Yes Yes No Yes No	OBL OBL OBL OBL FACW FACW FACW FAC FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	5% 20% of 15 30 10 15 5 10 10 5 5 100 100%	Total Cover Yos Yes Yes Yes No Yes No Total Cover	OBL OBL OBL OBL FACW FACW FAC FAC FAC FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover:	5% 20% of 15 30 10 15 5 10 10 5 5 100 100%	Total Cover Yos Yes Yes Yes No Yes No Total Cover	OBL OBL OBL OBL FACW FACW FAC FAC FAC FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover:	5% 20% of 15 30 10 15 5 10 10 10 5 100% of 100	Total Cover Yos Yes Yes Yes No Yes No Total Cover	OBL OBL OBL OBL FACW FACW FAC FAC FAC FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover;	5% 20% of 15 30 10 15 5 10 10 5 100% 20% of	= Total Cover Yos Yes Yes Yes No Yes No - - Total Cover	OBL OBL OBL OBL FACW FACW FAC FACW FAC FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover:	5% 20% of 15 30 10 15 5 10 10 20% of	Total Cover Yos Yes Yes Yes No Yes No - Total Cover	OBL OBL OBL OBL FACW FACW FAC FACW FAC FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover; 3% Herb Stratum (Plot size:) 1. Oryza sativa 2. Eleocharis pavula 3. Eleocharis cellulosa 4. Junuto prachycarpus 5. Alopecurus carolinianus 5. Persicana hydropiperoides 7. Operus virens 8. Briza minor 9.0 10 11 12 **Moody Vine Stratum (Plot size:) **Moody Vine Stratum (Plot size:)	5% 20% of 15 30 10 15 5 10 10 20% of	= Total Cover total cover Yes Yes Yes Yes Yes No Yes No	OBL OBL OBL OBL FACW FACW FAC FACW FAC FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
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50% of total cover; 3% Herb Stratum (Plot size:) 1. Oryza sativa 2. Eleocharis pavula 3. Eleocharis cellulosa 4. Junuto prachycarpus 5. Alopecurus carolinianus 5. Persicana hydropiperoides 7. Operus virens 8. Briza minor 9.0 10 11 12 **Moody Vine Stratum (Plot size:) **Moody Vine Stratum (Plot size:)	5% 20% of 15 30 10 15 5 10 10 20% of	= Total Cover total cover Yes Yes Yes Yes Yes No Yes No	OBL OBL OBL OBL FACW FACW FAC FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Solid cover Solid cover	5% 20% of 15 30 10 15 5 10 10 20% of	= Total Cover total cover Yes Yes Yes Yes Yes No Yes No	OBL OBL OBL OBL FACW FACW FACW FACW FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height.

Color (moist) % Color (moist) % Type Loc Texture Remarks	Inches) Color (moist) % Color (moist) % Type* Loc* Texture Remarks 1078 1/2	Depth		to the dep	th needed to docur			or confirm	n the absence	of indicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Cocation: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils*; Hydric Soil Indicators; (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*; Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) 2 cm Muck (A10) (LRR S) Polyvalue Below Surface (S8) (LRR S, T, U) 2 cm Muck (A10) (LRR S) 2 cm Muck (A10) (LRR S) Piedmont Floodplain Soils (F19) (LRR P, Educed Vertic (F18) (outside MLRA 150) Piedmont Floodplain Soils (F19) (LRR P, Educed Vertic (F18) (unus Bright Loamy Soils (F20) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Red Parent Material (TF2) Piedmont Floodplain Soils (F20) Piedmont Floodplain Soils (F20) (MLRA 149A) Piedmont Floodplain Soils (F20) (MLRA 149A) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand, Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion, RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion, RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion, RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion, RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion, RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion RM=Reduced Vertic (F13) (MRRA 150A, 150B) Type: C=Concentration, D=Depletion RM=Red		Color (moist)	9%				Loc2	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*; Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) 3 cm Muck (A10) (LRR P, T, U) 2 cm Muck (A10) (LRR P, T, U) 3 cm Muck (A9) (LRR P, T, U) 4 cm Muck (A9) (LRR P, T, U) 4 cm Muck (A9) (LRR P, T, U) 5 cm Muck (A9) (LRR P, T, U) 5 cm Muck (A9) (LRR P, T, U) 5 cm Muck (A9) (LRR P, T, U) 6 cm Mart (F10) (LRR U) 6 cm Mart (F10) (LRR U) 7 cm Mart (F10) (LRR D, T) 7	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosof (A1)	-			COICH (MIOIST)		Турс			Nentarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Various Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (F7) Mark (F10) (LRR U) Piedmont Floodplain in Remarks) Piedmont Floodplain Soils (F10) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Iron-Manganese Masses (F12) (LRR O, P, T) Wall (F10) (LRR V) Depleted Othric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Welland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 133C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 133C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 133C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 133C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary Redox (R5) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary R5 Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary R5 Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary R5 Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Itary R5 Pie				EVE 476	200	564	_		-
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note	270+	10 YR 4/1	- 10	3/R #/0		KIN	164	cialy	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note						-	-		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note		-				, é			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note		9-			-		_	-	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Note				Love and the second				9	2. 2
Histosol (A1)	Histosol (A1)							ains.		
Histic Epipedon (A2)	Histic Epipedon (A2)			cable to all				DD C T I		Control of the second of the s
Black Histic (A3)	Black Histic (A3)		A		Property Colonial Col					
Hydrogen Sulfide (A4)	Hydrogen Sulfide (A4)		C. C		The second secon	A-1-1-1				
Stratified Layers (A5)	Stratified Layers (A5)					The second second			The second secon	그 아들이 많은 그들은 그렇게 되었다. 그렇게 되었다고, 이 없었습니다 누가 하나 먹었다.
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S8) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No	Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Setrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No Xermarks:									
Muck Presence (A8) (LRR U)	Muck Presence (A8) (LRR U)	Organic	Bodies (A6) (LRR I	P, T, U)	Redox Dark	Surface (F6)		(MLF	(A 153B)
□ 1 cm Muck (A9) (LRR P, T) □ Marl (F10) (LRR U) □ Other (Explain in Remarks) □ Depleted Below Dark Surface (A11) □ Depleted Ochric (F11) (MLRA 151) □ Iron-Manganese Masses (F12) (LRR O, P, T) □ Sindicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. □ Sandy Mucky Mineral (S1) (LRR O, S) □ Delta Ochric (F13) (MLRA 151) unless disturbed or problematic. □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Pledmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): □ Type: □ □ Depth (inches): □ Hydric Soil Present? Yes □ No □ Remarks:	1 cm Muck (A9) (LRR P, T)									
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Thick Dark Surface (A12)	Thick Dark Surface (A12)							PAY.	U Other (Explain in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No	Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No X			ce (A11)					T) Sindio	store of hydrophydia vagotation and
□ Sandy Mucky Mineral (S1) (LRR O, S) □ Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): □ Type: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No Xemarks:			MI RA 1504						
□ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No X							, 0,		
□ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: □ Depth (inches): □ Hydric Soil Present? Yes □ No □ Remarks:	Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) testrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Xemarks:			(000 2) 2)				OA, 150B)		as assaults of the production of the same
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Semantics:	Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:									
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No 2	Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes NoX Remarks:		Matrix (S6)		☐ Anomalous E	Bright Loa	my Soils (F20) (MLF	RA 149A, 153C,	153D)
Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	Type: Depth (inches): Hydric Soil Present? Yes No _X									
Depth (inches): Hydric Soll Present? Yes No No	Depth (inches): Hydric Soil Present? Yes No X emarks:	Dark Su	rface (S7) (LRR P,							
Remarks:	Remarks:	Dark Su	rface (S7) (LRR P,							
		Dark Su	rface (S7) (LRR P,							
Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.	Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.	Dark Su Restrictive Type:	rface (S7) (LRR P, Layer (if observed)						Hydric Soil	Present? Yes No X
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):			*1.10	W6 1 W		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in: Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		
		Dark Su Restrictive Type: Depth (in- Remarks:	rface (S7) (LRR P, Layer (If observed) ches):):	il has been p	lowed	and ar	tificially		

Project/Site: Middleton Estate 241 ac	City/County: Chamber	rs County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York		State: Texas	Sampling Point: 976
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Rai	nge:	
Landform (hillslope, terrace, etc.): Levee	Local relief (concave, c	convex, none): slope	Slope (%): 10
		Long: -94.382715°	Datum:
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slope		10.00	ification: None
Are climatic / hydrologic conditions on the site typical for this		(If no, explain in	
		Normal Circumstances	
Are Vegetation, Soil, or Hydrology r	naturally problematic? (If ne	eeded, explain any ansi	wers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point le	ocations, transec	ts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes N N N N	o X is the Sampled within a Wetlan		No X
Sampling point is on a man-made leve	ee.		
camping point to on a man made leve			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Towns to the same of the same	pil Cracks (B6)
	Fauna (B13)		/egetated Concave Surface (B8)
	posits (B15) (LRR U)	the second secon	Patterns (B10)
1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	en Sulfide Odor (C1)		Lines (B16)
	d Rhizospheres along Living Roots		on Water Table (C2)
H	ce of Reduced Iron (C4)	4-2	urrows (C8)
	Iron Reduction in Tilled Soils (C6)		Visible on Aerial Imagery (C9)
1 - 1 1	ick Surface (C7)		nic Position (D2)
Iron Deposits (B5) Other (E	Explain in Remarks)	Shallow A	quitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neut	ral Test (D5)
Water-Stained Leaves (B9)		Sphagnum	n moss (D8) (LRR T, U)
Field Observations:	The state of the s		
Surface Water Present? Yes No De	pth (inches);		
Water Table Present? Yes No X De	pth (inches):		
Saturation Present? Yes No X De (includes capillary fringe)	pth (inches): We	etland Hydrology Pres	ent? Yes No X
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections	i), if available:	
	Car Manager		
Remarks:			
Area has been artificially flooded for ri-	ce farming		
Area has been artificially flooded for ri	ce farming		

US Army Corps of Engineers

Tree Stratum (Plot size:)		Dominant	Indicator	Dominonas Test umrkahasts
		Dominant Species?		Dominance Test worksheet:
Celtis occidentalis	20	Yes.	FAC	Number of Dominant Species
		-		That Are OBL, FACW, or FAC: 4 (A)
Sapium sebiferum	35	Yes	FACU	Total Number of Dominant
3		15	2	Species Across All Strata:
(,		E	-	The state of the s
		-		Percent of Dominant Species That Are ORL FACIAL or FAC: 57% (A)
5		-	$\overline{}$	That Are OBL, FACW, or FAC: (A/
i		-		Prevalence Index worksheet:
7			3	The state of the s
3		34	-	Total % Cover of:Multiply by:
		= Total Cov	/er	OBL species x 1 =
50% of total cover: 28%	-			FACW species x 2 =
	20 76 01	total cover	-	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
Ligustrum sinense	30	Yes	FAC	
9 llex vamitoria	35	Yes	FAC	UPL species x 5 =
3,			9.	Column Totals: 0 (A) (E
1			7	200,000,000,000,000,000
				Prevalence Index = B/A =
5			$\overline{-}$	Hydrophytic Vegetation Indicators:
5		-	8	■ 1 - Rapid Test for Hydrophytic Vegetation
7	_	2	.6	2 - Dominance Test is >50%
B				E Dominiando Fostis Form
			2	D 2 Dravalance Index is 22.01
			ior.	☐ 3 - Prevalence Index is ≤3.01
	65%	= Total Co	/er	□ 3 - Prevalence Index is ≤3.0 ¹ □ Problematic Hydrophytic Vegetation (Explain)
50% of total cover:33%	65%	= Total Co	/er	
50% of total cover:33%	65%	= Total Co	/er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover; 33% Herb Stratum (Plot size;)	65%	= Total Cover	/er	
50% of total cover; 33% Herb Stratum (Plot size:) [Cynodon dadylon	65% of 20% of	= Total Cover	/er :13% :	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover;	65% 20% of	= Total Cover	FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover;33% Herb Stratum (Plot size:) Cynodon dadylon	65% 20% of	= Total Cover total cover Yes	FACU FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover; 33% Herb Stratum (Plot size:) 1_ Cynodon dadylon 2. Sorghum halapense 3.	65% 20% of	= Total Cover total cover Yes	FACU FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
50% of total cover;33% Herb Stratum (Plot size;) 1_ Cynodon dadylon 2_ Sorghum halapense 3	20% of	= Total Cover total cover Yes	FACU FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
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50% of total cover;33% Herb Stratum (Plot size:) 1. Cynodon dadylon 2. Sorghum halapense 3	20% of 5	= Total Cover Yes Yes	FACU FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
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50% of total cover;3399 Herb Stratum (Plot size:) 1. Cynodon dadylon 2. Sorghum halapense 3	20% of 5	= Total Cover Yes Yes	FACU FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
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50% of total cover;	20% of 5 20% of 5 5 25% 25% of 15	= Total Cover Yes Yes	FACU FACU FACU FACU FACU FACU FACU FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

	ription: (Describe	to the dept				or contirn	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	Type '	Loc2	Texture	Remarks
0-15	10YR 4/1	100	COICI (MOIST)		Турс		clay	Nontarks
15-24	10YR 4/2	90	7.5YR 5/8	10	RM	-	clay	-
19169	10/18/4/2	- 90	2.311C3/6	10	12/01	M	Lidy	
		_			-	-		
	-	-		_	<u> </u>			
					4	.0		
							5-0-	
	-					-	-	
							74	Br. Bucklister Holling
	oncentration, D=Dep Indicators: (Applic					ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ ;
Histosol	The second second	able to all i	Polyvalue Be			DD C T I		fuck (A9) (LRR O)
	oipedon (A2)		☐ Thin Dark St					luck (A10) (LRR S)
Black Hi	A CONTRACTOR OF THE PARTY OF TH		Loamy Muck	A-1-1				ed Vertic (F18) (outside MLRA 150A,E
Hydroge	n Sulfide (A4)		Loamy Gleye	The second second				ont Floodplain Soils (F19) (LRR P, S, T
Stratified	Layers (A5)		■ Depleted Ma	trix (F3)			☐ Anoma	lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark				American Company of the Company of t	RA 153B)
	icky Mineral (A7) (L		Depleted Da					arent Material (TF2)
	esence (A8) (LRR L	1)	Redox Depre	-	-8)			hallow Dark Surface (TF12)
	ick (A9) (LRR P, T) d Below Dark Surfac	o (A11)	☐ Marl (F10) (L☐ Depleted Oc		/881 DA 4	541	U Other (Explain in Remarks)
	ark Surface (A12)	G (ATT)	☐ Iron-Mangan				T) Sindic	ators of hydrophytic vegetation and
	rairie Redox (A16) (MLRA 150A						and hydrology must be present.
	anie manne h mal f					1 -1		
Sandy M	lucky Mineral (S1) (LRR O. SI	□ Delta Ochric	(F17) (M	LRA 151)		unle	ess disturbed or problematic.
400000000000000000000000000000000000000	lucky Mineral (S1) (Gleyed Matrix (S4)	LRR O, S)	☐ Delta Ochric ☐ Reduced Ve			0A, 150B)		ess disturbed or problematic.
Sandy G		LRR O, S)	☐ Reduced Ve	rtic (F18) oodplain ((MLRA 15 Soils (F19)	(MLRA 14	19A)	
Sandy G Sandy R Stripped	eleyed Matrix (S4) edox (S5) Matrix (S6)		☐ Reduced Ve	rtic (F18) oodplain ((MLRA 15 Soils (F19)	(MLRA 14	N.	
Sandy G Sandy R Stripped Dark Sur	eleyed Matrix (S4) ledox (S5) Matrix (S6) rface (S7) (LRR P,	s, t, u)	☐ Reduced Ve	rtic (F18) oodplain ((MLRA 15 Soils (F19)	(MLRA 14	19A)	
Sandy G Sandy R Stripped Dark Sur Restrictive	eleyed Matrix (S4) edox (S5) Matrix (S6)	s, t, u)	☐ Reduced Ve	rtic (F18) oodplain ((MLRA 15 Soils (F19)	(MLRA 14	19A)	
Sandy G Sandy R Stripped Dark Sur Restrictive I	eleyed Matrix (S4) ledox (S5) Matrix (S6) rface (S7) (LRR P, Layer (If observed)	s, t, u)	☐ Reduced Ve	rtic (F18) oodplain ((MLRA 15 Soils (F19)	(MLRA 14	19A) RA 149A, 153C,	. 153D)
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Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	eleyed Matrix (S4) ledox (S5) Matrix (S6) rface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ve	rtic (F18) bodplain { Bright Loa	(MLRA 15 Soils (F19) imy Soils ((MLRA 14	19A) RA 149A, 153C,	153D)

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 201
Applicant/Owner: Billy York	State: Texas Sampling Point: 977
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A La	at: 29.751321° Long: -94.380690° Datum:
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 perce	ent slopes, rarely flooded NWI classification: None
Are climatic / hydrologic conditions on the site typical for this	
Are Vegetation X, Soil X, or Hydrology X sig	
	aturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing sampling point locations, transects, important features, e
Hydrophytic Vegetation Present? Yes X No	In the Compiled Asses
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present? Yes X No	Within a Wetland? Tes No 73
Remarks:	
Sampling point is within a rice field that	was farmed in 2015. Levees still remain. Vegetation is
	merous adventive wetland species. Soils have been
repeatedly plowed and artificially floode	
repeatedly plewed and artificially floode	741.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required
Primary Indicators (minimum of one is required; check all the	nat apply) Surface Soil Cracks (B6)
Surface Water (A1) Aquatic F	Fauna (B13) Sparsely Vegetated Concave Surface (B8)
	osits (B15) (LRR U) Drainage Patterns (B10)
	n Sulfide Odor (C1) Moss Trim Lines (B16)
	Rhizospheres along Living Roots (C3)
	e of Reduced Iron (C4) Crayfish Burrows (C8)
	on Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
	k Surface (C7) Geomorphic Position (D2)
1	cplain in Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	opilagiam moss (bb) (Entr. 1, 6)
	th (inches):
	th (inches):
	th (inches): Wetland Hydrology Present? Yes X No
(includes capillary fringe)	Treated Hydrology Freschi 103 1222 No 1
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if available:
Remarks:	
Area has been artificially flooded for ric	e farming
The and seen annotally needed for he	o ramming

US Army Corps of Engineers

	Abcolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
	-	2		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
				That Ac obs., TAOIV, SI TAO(A)
2				Total Number of Dominant
S				Species Across All Strata: 3 (B)
1,		-	2	Percent of Dominant Species
i			-	That Are OBL, FACW, or FAC: 100% (A/
3		-		
7		-	-	Prevalence Index worksheet:
		-	-	Total % Cover of: Multiply by:
3,		200	-	OBL species x 1 =
	T	= Total Cov		
50% of total cover:0%	20% of	total cover	0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
			8	FACU species x 4 =
				UPL species x 5 =
				Column Totals:0 (A)0 (E
n			=	
				Prevalence Index = B/A =
i			~	Hydrophytic Vegetation Indicators:
ò			×	1 - Rapid Test for Hydrophytic Vegetation
			8.	
				2 - Dominance Test is >50%
3		= Total Cov		☐ 3 - Prevalence Index is ≤3.01
50% of total cover:)	20000			Indicators of hydric soil and wetland hydrology must
_ Oryza sativa	30	Yes	OBL	be present, unless disturbed or problematic.
2. Eleochans parvula	40	Yes	OBL	Definitions of Four Vegetation Strata:
	20			
3, Junicus braichycarpus	25	Yes	FACW	Tree Moody plants excluding vines 3 in (7.6 cm)
***************************************		-	-	
1.		-	-	
ł,	\equiv		-	more in diameter at breast height (DBH), regardless height.
,	\equiv		-	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less
,				more in diameter at breast height (DBH), regardless height.
4,				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
4,				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
,				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
3				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
5				more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
3	9596	= Total Cov		more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
3	9596	= Total Cov		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	9596	= Total Cov		more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	95% 20% of	= Total Cover		more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
1	95% 20% of	= Total Cov	er : 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	95% 20% of	= Total Cover	er : 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	95% 20% of	= Total Cover	er : 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	95% 20% of	= Total Cover		more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	95% 20% of	= Total Cover		more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
4	95% 20% of	= Total Cov total cover	rer: 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
4	95%	= Total Cover	er : 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)	95%	= Total Cov total cover	er : 19%	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

Depth Matrix Redox Features Six Color (moist) % Color (moist) % Type Loc* Texture Remarks	Profile Desc	cription: (Describe	to the dep	h needed to docur	nent the	indicator	or confirm	n the absence	of Indicators.)
10/17 10/1			97.				Long	Toytura	Demarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Sand Grains. Type: C=Concentration, M=Matrix, MS=Masked Sand Grains. Type: C=Concentration M=Masked Sand Grains. Type: C=Concentration M=Mask				Color (moist)		Туре	Loc		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Total Calculus Calc				7.5VD 545	-		-		-
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosod (A1)	_	0-		7.7107.000					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	3-24	10YR 4/1	90	7.5YR 5/8	20	RM	M	day	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)		-	_			· —			£
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)		_	ارتست			-			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)			-			-	-		-
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Stratified Layers (A5) Depleted Matrix (F2) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck (A9) (LRR P, T, U) Depleted Below Dark Surface (F7) Marl (F10) (LRR U) Depleted Below Dark Surface (F7) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Delta Ochric (F13) (MLRA 150A) Derived Watrix (F2) Derived Watrix (F2) Derived Matrix (F3) Derived Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Derived Watrix (F10) Derived Watrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Depth (inches): Hydric Soil Present? Yes No Carter Soils (F10) No Carter Soils (F10) No Carter Soils (F10) Hydric Soil Present? Yes No Carter Soils (F10) No Carter Soils (F10) No Carter Soils (F10) Depth (Inches): Depth (Inches): Hydric Soil Present? Yes No Carter Soils (F10) No Carter Soil Reversed (F10) Hydric Soil Present?						-	-		
Histosol (A1)							ains.		
Histic Epipedon (A2)			cable to all						The Carlot of the Control of the Con
Black Histic (A3)		A							
Hydrogen Sulfide (A4)				The second secon	V-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				
Stratified Layers (A5)							. 01		[1] 선생님이 [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (A15) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No Career (A12) Hydric Soil Present? Present Material (TF2) Red Parent Material (TF						0 -1			
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Cher (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Sindicators of hydrophytic vegetation and wetland hydrology must be present, Umbric Surface (F13) (LRR O, P, T) Wetland hydrology must be present, Umbric Surface (F13) (LRR A 151) Umbric Surface (F13) (LRR A 151) Umbric Surface (F13) (LRR A 151) Wetland hydrology must be present, Umbric Surface (F13) (LRR A 151) Unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No			P, T, U)			F6)			
□ 1 cm Muck (A9) (LRR P, T) □ Marl (F10) (LRR U) □ Other (Explain in Remarks) □ Depleted Below Dark Surface (A11) □ Depleted Ochric (F11) (MLRA 151) □ Iron-Manganese Masses (F12) (LRR O, P, T) □ Iron-Manganese Masses (F12) (LRR O, P, T) □ Melland hydrology must be present of the view of the present of the view of the present of the view of	5 cm Mu	icky Mineral (A7) (L	RR P, T, U)	☐ Depleted Da	rk Surfac	e (F7)		☐ Red P	arent Material (TF2)
Depleted Below Dark Surface (A11)						8)			TO THE TO SHEET AND THE PARTY OF THE PARTY O
Thick Dark Surface (A12)								U Other	(Explain in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No			ce (A11)					T) Singlia	store of hydrophydic yn datalian and
□ Sandy Mucky Mineral (S1) (LRR O, S) □ Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): □ Type: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			MI PA 1504						
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No			MILITA 150F	i Li Oli iblic Odria			, 0,		ATTENDED TO SELECTION OF THE PROPERTY OF THE P
□ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: □ Depth (inches): □ Hydric Soil Present? Yes □ No □ Remarks:			LRR O. SI	☐ Delta Ochric	(F17) (M	LRA 151)		unl	ess disturbed or problematic
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	☐ Sandy M	lucky Mineral (S1) (LRR O, S)				0A, 150B		ess disturbed or problematic.
Restrictive Layer (if observed): Type: Depth (inches): Remarks: Type: Hydric Soil Present? Yes No Career and the second sec	Sandy M	flucky Mineral (S1) (Gleyed Matrix (S4)	LRR O, S)	Reduced Ver	rtic (F18)	(MLRA 15)	ess disturbed or problematic.
Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	Sandy M Sandy G Sandy R Stripped	Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) I Matrix (S6)		Reduced Ver	rtic (F18) codplain ((MLRA 15 Soils (F19)	(MLRA 1) 49A)	
Depth (inches): Hydric Soil Present? Yes No Remarks:	Sandy M Sandy G Sandy R Stripped Dark Sur	Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR P,	s, T, U)	Reduced Ver	rtic (F18) codplain ((MLRA 15 Soils (F19)	(MLRA 1) 49A)	
Remarks:	Sandy M Sandy G Sandy R Stripped Dark Sui Restrictive I	Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR P,	s, T, U)	Reduced Ver	rtic (F18) codplain ((MLRA 15 Soils (F19)	(MLRA 1) 49A)	
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I	Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ver	rtic (F18) codplain ((MLRA 15 Soils (F19)	(MLRA 1) 49A) RA 149A, 153C	, 153D)
Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ver	rtic (F18) codplain ((MLRA 15 Soils (F19)	(MLRA 1) 49A) RA 149A, 153C	, 153D)
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur estrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur estrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Stripped Dark Sur Stripped Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X
	Sandy M Sandy G Sandy R Stripped Dark Sur Restrictive I Type: Depth (inc	Mucky Mineral (S1) (Sleyed Matrix (S4) (Redox (S5) (Matrix (S6) (Arface (S7) (LRR P, Layer (If observed) (Ches):	S, T, U)	Reduced Ver	rtic (F18) podplain { Bright Los	(MLRA 15 Soils (F19) my Soils ((MLRA 14 F20) (MLF) 49A) RA 149A, 153C Hydric Soll	, 153D) Present? Yes No X

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Tex	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 10 303 100 6
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): dik	ed - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.751152° Long: -94.380949°	Datum:
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 perc	ent slopes, rarely flooded NWI c	classification: None
Are climatic / hydrologic conditions on the site typical for this		ain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X s		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
] [[] [] [] [] [] [] [] [] []	aturally problematic? (If needed, explain any	and the second s
		-5-0-10-0-1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X N Yes N	Is the Sampled Area	
Wetland Hydrology Present? Yes X N	within a Wetland? Yes	s No X
Remarks:		
Sampling point is within a rice field tha indicative of recent rice farming with nu repeatedly plowed and artificially flood	umerous adventive wetland specie	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondar	v Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all t		ce Soil Cracks (B6)
		ely Vegetated Concave Surface (B8)
	가능하다 (2015년 1401년 15 15 15 15 15 15 15 15 15 15 15 15 15	age Patterns (B10)
Saturation (A3)	en Sulfide Odor (C1) Moss	Trim Lines (B16)
Water Marks (B1) Oxidized	Rhizospheres along Living Roots (C3) Dry-S	eason Water Table (C2)
Sediment Deposits (B2) Presence	e of Reduced Iron (C4)	ish Burrows (C8)
Drift Deposits (B3)	ron Reduction in Tilled Soils (C6) Satura	ation Visible on Aerial Imagery (C9)
	31	norphic Position (D2)
[ow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	1,000	Neutral Test (D5) gnum moss (D8) (LRR T, U)
Field Observations:	эрпаў	gridin moss (Do) (ERR 1, 0)
	oth (inches):	
	oth (inches):	
		Present? Yes X No
(includes capillary fringe)		resent tes no
Describe Recorded Data (stream gauge, monitoring well, a	aerial photos, previous inspections), if available:	
Remarks:		
Area has been artificially flooded for ri-	ce farming	

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e Stratum (Plot size:) 50% of total cover:0%	% Cover	= Total Cover	Status St	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/ Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species
50% of total cover:0 sling/Shrub Stretum (Plot size:)	0% = 20% of	= Total Cover		That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/ Prevalence Index worksheet: 100% (A/ Prevalence Index = X = 100% (B/ Prevalence Index = B/A = 100% (B/ Prevalence Index = B/ Pr
50% of total cover:0 Sling/Shrub Stretum (Plot size:)	0% = 20% of	= Total Cover		Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/ Prevalence Index worksheet:
50% of total cover: 0% sling/Shrub Stretum (Plot size:)	0% = 20% of	= Total Cover		Species Across All Strata:
50% of total cover:	0% = 20% of	= Total Cover	. 096	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by:
50% of total cover:0	20% of	= Total Cover	. 096	That Are OBL, FACW, or FAC: 100% (A/ Prevalence Index worksheet:
50% of total cover:0	20% of	= Total Cover		Prevalence Index worksheet:
50% of total cover:0 sling/Shrub Stretum (Plot size:)	20% of	= Total Cover		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: 0 (A) 0 (E Prevalence Index = B/A = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation
50% of total cover:0	0% = 20% of	= Total Cover		OBL species
50% of total cover:0%	0% = 20% of	total cover		FACW species
50% of total cover:0%	_ 20% of	total cover		FACW species
oling/Shrub Stretum (Plot size:)	0% =			FACU species
	0% =			FACU species x 4 =
	0% =			UPL species
	0% =			Column Totals: (A) (B Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
	0% :=		=	Prevalence Index = B/A =
9	0% =		=	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
	0% =			1 - Rapid Test for Hydrophytic Vegetation
	0% =		8	1 - Rapid Test for Hydrophytic Vegetation
0	0% =	-		1
0	0% =	-		2 - Dominance Test is >50%
0	0% =		-	☐ 3 - Prevalence Index is ≤3.01
			er	Problematic Hydrophytic Vegetation (Explain)
DO TO GIT GEAT GOVERN		total cover		Problematic Hydrophytic Vegetation (Explain)
b Stratum (Plot size:)		10101 50101		Value of the control
	15	No	OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	50			The first of adjust a second of the first for all the first of the fir
		Yes	OBL	Definitions of Four Vegetation Strata:
	20	Yes	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
		-	-	more in diameter at breast height (DBH), regardless
			~	height.
2		8	-	Sapling/Shrub - Woody plants, excluding vines, less
		-	~	than 3 in. DBH and greater than 3.28 ft (1 m) tall
		~	-	Herb - All herbaceous (non-woody) plants, regardles
				of size, and woody plants less than 3.28 ft tall.
			-	Woody vine - All woody vines greater than 3.28 ft in height.
		4	3	noight.
	0504	Tale LO		
		Total Co		
50% of total cover: 48%	_ 20% of	total cover	1879	
ody Vine Stratum (Plot size:)				
				1
		-	<i>a</i>	
		e .	9	
		4.	-	Hydrophytic
	0% =	= Total Cov	/er	Vagatation
50% of total cover: 0%		total cover		Present? Yes No
marks: (If observed, list morphological adaptations below)				
egetation is adventive from recent rice	tarmir	ng.		

Matrix Color (moist) IOVR 6/2 IOVR 4/2 Contration, D=Depticators: (Applied)	pletion, RM=	Color (moist) 7.5YR 5/8 7.5YR 5/6	36 20	RM RM	Loc ²	Sit slity day	Remarks
IOYR 6/2 IOYR 4/1 Contration, D=Deplicators; (Applic	100 70 80	7.5YR 5/8	30	RM	M	Sitt sitty day	
centration, D=Deplicators: (Applic	so pletion, RM=	7.7.7.7					
centration, D=Deplicators: (Applic	so pletion, RM=	7.5 YR 5/8	26			day	
centration, D=Dep ficators: (Applic	pletion, RM=						
licators; (Applic 1)				\equiv			
licators; (Applic 1)				-			
licators; (Applic 1)			196				
licators; (Applic 1)					_	-	
licators; (Applic 1)					_	7	2. 2
1)					ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
	able to all	Polyvalue Be			T P S S		uck (A9) (LRR O)
edon (A2)		☐ Thin Dark S					uck (A10) (LRR S)
c (A3)		☐ Loamy Muck					ed Vertic (F18) (outside MLRA 150A,E
Sulfide (A4)		Loamy Gley		(F2)			nt Floodplain Soils (F19) (LRR P, S, T
	T 111			E61		The second secon	ous Bright Loamy Soils (F20) A 153B)
The second secon						The state of the s	rent Material (TF2)
						☐ Very St	nallow Dark Surface (TF12)
(A9) (LRR P, T)						Other (Explain in Remarks)
	ce (A11)					T) Sindio	ators of hydrophytic vegetation and
A CONTRACTOR OF THE PARTY OF TH	MLRA 150 A						and hydrology must be present.
					1 = 1		ss disturbed or problematic.
yed Matrix (S4)							
							222
and the second second	C T 10	Anomalous I	Bright Los	amy Soils (F20) (NIL)	RA 149A, 153C,	153D)
	7 1					1	
						100	
es):						Hydric Soil	Present? Yes No X
						T. Marcheloner	
	y Mineral (A7) (Lence (A8) (LRR I (A9) (LRR P, T) elow Dark Surfac Surface (A12) rie Redox (A16) (kky Mineral (S1) (yed Matrix (S4) lox (S5) atrix (S6) ce (S7) (LRR P, yer (if observed)	dies (A6) (LRR P, T, U) y Mineral (A7) (LRR P, T, U) ence (A8) (LRR U) (A9) (LRR P, T) elow Dark Surface (A11) Surface (A12) tie Redox (A16) (MLRA 150A ky Mineral (S1) (LRR O, S) yed Matrix (S4) tox (S5) tox (S5) tox (S5) tox (S7) (LRR P, S, T, U) yer (If observed):	dies (A6) (LRR P, T, U) y Mineral (A7) (LRR P, T, U) pence (A8) (LRR U) (A9) (LRR P, T) (A9) (LRR P, T) pelow Dark Surface (A11) Surface (A12) pie Redox (A16) (MLRA 150A) pie Redox (A16) (MLRA 0, S) pel Marix (S4) pox (S5) ped Matrix (S4) pox (S5) pe (S7) (LRR P, S, T, U) per (If observed):	dies (A6) (LRR P, T, U) y Mineral (A7) (LRR P, T, U) choc (A8) (LRR U) (A9) (LRR P, T) cleiow Dark Surface (A11) Surface (A12) cleiow Dark Surface (A11) Surface (A12) cleiow Dark Surface (A11) Surface (A12) cleiow Dark Surface (A11) Depleted Ochric (F11) Iron-Manganese Mas cleic Redox (A16) (MLRA 150 A) Umbric Surface (F13) We Matrix (S4) cox (S5) cox (S5) cox (S5) cox (S7) (LRR P, S, T, U) ver (If observed):	dies (A6) (LRR P, T, U) y Mineral (A7) (LRR P, T, U) punce (A8) (LRR U) (A9) (LRR P, T) ellow Dark Surface (A11) Surface (A12) fie Redox (A16) (MLRA 150A) yie Redox (A16) (MLRA 150A) punce (A17) fie Redox (A18) (MLRA 150A) punce (A18) punce (A19) fie Redox (A16) (MLRA 150A) punce (A19) fie Redox (A16) (MLRA 150A) punce (A19) fie Redox (A16) (MLRA 150A) punce (A17) punce (A18) punce (F13) (LRR P, T, T) punce (F13) (LRR P, T, T) punce (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 151) punce (F18) (MLRA 151) Anomalous Bright Loamy Soils (F19) punce (F	dies (A6) (LRR P, T, U) y Mineral (A7) (LRR P, T, U) pence (A8) (LRR U) (A9) (LRR P, T) ellow Dark Surface (A11) Surface (A12) peleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P) peter Mari (F3) (LRR P, T, U) peter Mari (F3) (MLRA 151) Pedemont Floodplain Soils (F3) (MLRA 150A) peter Mari (F3) (MLRA 150A, 150B) peter Mari	Mineral (A7) (LRR P, T, U)

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Point: 979
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
	29.749403° Long: -94.381471° Datum:
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percen	t slopes, rarely flooded NWI classification: None
Are climatic / hydrologic conditions on the site typical for this tir	
Are Vegetation , Soil , or Hydrology , sign Are Vegetation , Soil , or Hydrology , natural	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No	Is the Sampled Area within a Wetland? Yes No X
Sampling point is within a rice field that v	was farmed in 2015. Levees still remain. Vegetation is nerous adventive wetland species. Soils have been d.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Saturation (A3) Hydrogen S Water Marks (B1) Oxidized R Sediment Deposits (B2) Presence of Drift Deposits (B3) Recent Iron Algal Mat or Crust (B4) Thin Muck	sits (B15) (LRR U) Sulfide Odor (C1) hizospheres along Living Roots (C3) of Reduced Iron (C4) n Reduction in Tilled Soils (C6) Surface (C7) Iain in Remarks) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Water Table Present? Yes No X Depth	(inches):
December 1	
Area has been artificially flooded for rice	farming

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	Absolute	Dominan	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover			Number of Dominant Species
4			8	That Are OBL, FACW, or FAC:2 (A)
			(5	
)			-	Total Number of Dominant Species Across All Strata: 2 (B)
				Species Across All Strata: (B)
				Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC: 100% (A/
S		-	\sim	Prevalence Index worksheet:
7		-	_	Total % Cover of: Multiply by:
3		3.		
	0%	= Total Co	ver	OBL species x 1 =
50% of total	cover:0% 20% of	total cove	r: 0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)			FAC species x 3 =
_ Sesbania drummondli	2 2	Yes	FACW	FACU species x 4 =
2				UPL species x 5 =
				Column Totals: (A) (E
h _				
				Prevalence Index = B/A =
),			ć — — (Hydrophytic Vegetation Indicators:
S		-0	2	X 1 - Rapid Test for Hydrophytic Vegetation
1		-	.8	2 - Dominance Test is >50%
3		-	-	☐ 3 - Prevalence Index is ≤3.01
	2%			
5004 of total	cover: 1% 20% of			Problematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:)		total cove	. 070	
				Indicators of hydric soil and wetland hydrology must
_ Eleochans montevidensis	60	Yes	FACW	be present, unless disturbed or problematic.
2. Eleocharis parvula	10	No	OBL	Definitions of Four Vegetation Strata:
3. Junicus brachycarpus	15	No	FACW	ACCURATION AND ADDRESS OF THE PARTY OF THE P
5, Junious pracriyearpus		144		Tree - Woody plants excluding vines 3 in (7.6 cm)
		No	FACW	
Hydrocotyle bonarensis		-	FACW	
Hydrocotyle bonarensis Cyperus virėns	5	No		more in diameter at breast height (DBH), regardless height.
4. Hydrocotyle bonarensis 5. Cyperus virens 6. Alopecurus carolinansis	5 5 5	No No No	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less
4. Hydrocotyle bonarensis 5. Cyperus virens 6. Alopecurus carollinensis 7.	<u>5</u> 5	No No No	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall
4. Hydrocotyle bonarensis 5. Cyperus virens 6. Alopecurus carollinensis 7. 8.	5 5 5	No No No	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles
Hydrocotyle bonarensis Cyperus virens Alopecurus carollinensis Jacobs Communication	5 5 5	No No No	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall
Hydrocotyle bonarensis Cyperus virens Alopecurus carollinensis Jacobs Communication	5 5 5	No No No	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
4. Hydrocotyle bonarensis. 5. Cycerus virens 6. Alopecurus carolinensis 7. 8. 9.	5 5 5	No No No	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Hydrocotyle bonarensis Cyperus virens Alopecurus carollinensis Line Cyperus virens Line Cy	5 5 5	No No No	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopecurus carollinensis Line Cyperus virens Line Cy	5 5 5	No No No	FACW	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4. Hydrocotyle bronarensis 5. Cyperus virens 6. Alopeourus carolinansis 7. 8. 9. 10.	5 5 5	No No No 	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopeourus carolinansis 10. 11. 12. 50% of total	5 5 5 5 cover: 50% 20% of	No No No 	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopecurus carolinansis Location Lo	5 5 5 5 20% of	No No No No Total Cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopecurus carolinansis Alopecurus carolinansis Location Stratum (Plot size:	5 5 5 5 20% of	No No No Total Cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4. Hydrocotyle bonarensis 5. Cyperus virens 5. Alopecurus carollinansis 7. 8. 9. 10. 11. 12. 50% of total 1. 14. 15. 16. 16. 17. 18. 18. 18. 18. 19. 19. 19. 20. 20. 20. 20. 20. 20. 20. 20. 20. 20	5 5 5 5 200ver:	No No No Total Cototal cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopecurus carolinansis	5 5 5 5 20% of	No No No Total Cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Hydrocotyle bonarensis Cyperus virens Alopeourus carolinansis Alopeourus carolinansis Location Stratum (Plot size: Moody Vine Stratum (Plot size:	5 5 5 5 20% of	No No No Total Cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Moody Vine Stratum (Plot size:	5 5 5 5 20% of	No No No Total Cove	FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height.
4. Hydrocotyle bronarensis 5. Cyperus virens 5. Alopeourus carolinansis 7. 8. 9. 10. 11. 12. 50% of total 1. 2. 3. 4.	5 5 5 5 20% of	No No No No Total Cove	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Hydrocotyle bonarensis Cyperus virens Alopecurus carolinansis	5 5 5 5 20% of	No No No No Total Cototal cove	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Hydrocotyle bonarensis Cyperus virens Alopeourus carolinansis Alopeourus carolinansis 10. 11. 12. 50% of total alopeourus 50% of total alopeourus 50% of total alopeourus 50% of total alopeourus	5 5 5 5 5 20% of	No No No No Total Cove	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Hydrocotyle bonarensis Cyperus virens Alopeourus carolinansis Alopeourus carolinansis 10. 11. 12. 50% of total alopeourus carolinansis 50% of total alopeourus 1. 2. 3. 4. 5.	5 5 5 5 5 20% of	No No No No Total Cototal cove	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Hydrocotyle bonarensis Cyperus virens Alopeourus carolinansis Alopeourus carolinansis 10. 11. 12. 50% of total alopeourus 50% of total alopeourus 50% of total alopeourus 50% of total alopeourus	5 5 5 5 5 20% of	No No No Total Cototal cove	FACW FACW	more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

	Color (moist) 7.5YR 4/6 =Reduced Matrix, M LRRs, unless othe Polyvalue B Thin Dark S Loamy Mucl Loamy Gley Depleted Matrix S Redox Dark Depleted Dark Redox Depr Marl (F10) (Depleted Octor	erwise note telow Surface (S9) ky Mineral (end Matrix (F3) atrix (F3) ark Surface (F1 LRR U) chric (F11) (hese Masse face (F13) (face (F13	Sand Grai dd.) ce (S8) (LF (LRR S, T F1) (LRR S, T F1) (LRR S) (F7) 3) (MLRA 15' es (F12) (L	ins. RR S, T, U) O)	Indicators for I 1 cm Muck 2 cm Muck Reduced V Piedmont F Anomalous (MLRA 1 Red Parent Very Shallc Other (Expl	(A10) (LRR S) ertic (F18) (outside MLRA 150A, loodplain Soils (F19) (LRR P, S, T Bright Loamy Soils (F20)
RR P, T, U) 7) (LRR P, T, U RR U) Pulpose (A11) pulse (A11) pulse (A11) pulse (A11) pulse (A11) pulse (A11) pulse (A11)	7.5 YR 4/6 =Reduced Matrix, M LRRs, unless othe Polyvalue B Thin Dark S Loamy Mucl Loamy Gley Depleted Matrix Redox Dark Redox Dark Redox Depr Marl (F10) (Depleted Do Iron-Mangar A) Umbric Surf	IS=Masked prwise note elow Surface urface (S9) key Mineral (led Matrix (F3) Surface (F1) ark Surface (F1) Chric (F1) (less Masse face (F13) (I)	Sand Grai dd.) te (S8) (LR (LRR S, T F1) (LRR F2) (F7) th (F7) th (F7) th (F7)	ins. RR S, T, U) O)	2Location: PL= Indicators for I	Pore Lining, M=Matrix. Problematic Hydric Soils ³ ; (A9) (LRR O) (A10) (LRR S) ertic (F18) (outside MLRA 150A, E loodpain Soils (F19) (LRR P, S, T Bright Loamy Soils (F20) 53B) Material (TF2) w Dark Surface (TF12)
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RR P, T, U) 7) (LRR P, T, U RR U) P), UT P), UT P), UT P), UT 2) 16) (MLRA 150	LRRs, unless othe Polyvalue B Thin Dark S Loamy Mucl Loamy Gley Depleted M Redox Dark Redox Depr Redox Depr Redox Depr Marl (F10) (Depleted Oc	erwise note telow Surface (S9) ky Mineral (end Matrix (F3) atrix (F3) ark Surface (F1 LRR U) chric (F11) (hese Masse face (F13) (face (F13	ed.) ce (S8) (LF (LRR S, T F1) (LRR F2) 6) (F7) 3) (MLRA 15* es (F12) (L	RR S, T, U) (, U) ()	Indicators for I 1 cm Muck 2 cm Muck Reduced V Piedmont F Anomalous (MLRA 1 Very Shalld Other (Expl	Problematic Hydric Soils ³ ; (A9) (LRR O) (A10) (LRR S) ertic (F18) (outside MLRA 150A, l'iloodpain Soils (F19) (LRR P, S, T Bright Loamy Soils (F20) 53B) Material (TF2) ow Dark Surface (TF12)
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RR U) P, T) Surface (A11) 2) 16) (MLRA 150	Redox Depr Marl (F10) (Depleted Oc Iron-Mangar A) Umbric Surf	essions (F8 LRR U) chric (F11) (nese Masse face (F13) (I	3) (MLRA 15* es (F12) (L		☐ Very Shallo	w Dark Surface (TF12)
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2) 16) (MLRA 150	☐ Iron-Mangar A) ☐ Umbric Surf	nese Masse ace (F13) (I	s (F12) (L		3 Indicators	
16) (MLRA 150	A) Umbric Surf	face (F13) (I		RR O, P, 7	1 Indicators	
						s of hydrophytic vegetation and
S1) (LRR O, S)	■ Delta Ochric	~ (E47) INAL		U)		hydrology must be present.
				1 477.34	unless o	listurbed or problematic.
54)	Reduced Ve				4	
	Piedmont FI				The second secon	2.0
	Anomalous	Bright Loan	ny Soils (F.	20) (NILRA	149A, 153C, 153	(D)
R P, S, T, U)				-		
ved):						
	_			- 10	Transfer Super-	
	_				Hydric Soil Pres	sent? Yes No X

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Point: 980
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.	.747806° Long: -94.381774° Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes,	
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:	Is the Sampled Area within a Wetland? Yes X No
	s farmed in 2015. Levees still remain. Vegetation is ous adventive wetland species. Soils have been
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Sediment Deposits (B2)	de Odor (C1) spheres along Living Roots (C3) duced Iron (C4) duction in Tilled Soils (C6) ace (C7) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes X No Depth (inch Water Table Present? Yes No Depth (inch Saturation Present? Yes No Depth (inch (includes capillary fringe) Describe Recorded Data (stream gauge, moniforing well, aerial ph	nes): Wetland Hydrology Present? Yes X No
Remarks:	
Area has been artificially flooded for rice far	rming

US Army Corps of Engineers

ree Stratum (Plot size:)	% Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species
	Jane Street	-	Status	
				That Are ODI EACIN or EAC:
			_	That Are OBL, FACW, or FAC:3 (A)
				Total Number of Dominant
			_	Species Across All Strata: 3 (B)
	-	-	~	Percent of Dominant Species
				That Are OBL, FACW, or FAC: 100% (A)
			-	Prevalence Index worksheet:
		э.		Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 =
50% of total cover:0%				FACW species x 2 =
apling/Shrub Stratum (Plot size:)		total cover.		FAC species x 3 =
				FACU species x 4 =
				UPL species x 5 =
				Column Totals: 0 (A) (E
	-	-	-	(A)
				Prevalence Index = B/A =
		~		Hydrophytic Vegetation Indicators:
		Al	< -	X 1 - Rapid Test for Hydrophytic Vegetation
		-	-	2 - Dominance Test is >50%
			2	
		= Total Cov	or	☐ 3 - Prevalence Index is ≤3.01
				Problematic Hydrophytic Vegetation (Explain)
50% of total cover:0%	20% of	total cover:	0%	
erb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
Eleochans montevidensis	40	Yes	FACW	be present, unless disturbed or problematic.
Eleochans parvula	10	No	OBL	Definitions of Four Vegetation Strata:
Junious brachycarpus	15	Yes	FACW	Tara (Manda alaska analodina viras 2 in /7 Cara)
Oryza saliva	15	Yés	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
Cyperus virens	5	No	FACW	height.
Alopeourus carolinensis	5	No	FACW	2 0 20 1 1/2 1 1/2 1 1/2 1
	$\overline{}$			Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall
		_	_	than 5 m. portand greater than 5.28 m (1 m) tall
	_		-	Herb - All herbaceous (non-woody) plants, regardles
·				of size, and woody plants less than 3.28 ft tall.
0		B.		Woody vine - All woody vines greater than 3.28 ft in
		-	=	height.
2.		13	4	
	90%	= Total Cov	er	
50% of total cover: 45%				
	20% 01	total cover.		
/oody Vine Stratum (Plot size:)				
		_		
		+	+	
		(a)	9	
		80	-	Hydrophytic
	0%	= Total Cov	er	Vegetation
50% of total cover: 0%	THE TO -	total cover:		Present? Yes X No
		Local Cover.	9.79	
emarks: (If observed, list morphological adaptations belo /egetation is adventive from recent ric		ng.		

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Ve Hydrogen Suiffide (A4) Depleted Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Muck (A9) (LRR U) Redox Depressions (F8) Very Shallon Tom Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) welland if	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=F	IVOITIGINS.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=F	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Tuocation: PL=FHydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histosol (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR S, T, U) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T, U) Depleted Matrix (F2) Muck Presence (A8) (LRR P, T) Muck Presence (A8) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Dark Surface (F1) Depleted Below Dark Surface (A11) Depleted Dark Surface (F1) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Depleted Ochric (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Delta Ochric (F17) (MLRA 151) Sandy Redox (S6) Dark Surface (S7) (LRR A 150A, 150B) Sandy Redox (S5) Dark Surface (S7) (LRR P, T, U) Welland Findicators Welland Findic	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Horizogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Coast Presence (A8) (LRR P, T) Depleted Below Durk Surface (F1) (MLRA 151) Thick Dark Surface (A11) Depleted Obark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S7) (LRR P, T, U) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (A15) Horizogen Sulfide (A4) Depleted Dark Surface (F7) Redox Depressions (F8) Wery Shallov Other (Explain Coast Prairie Redox (A16) (MLRA 150A) Depleted Dark Surface (F13) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Deflete Obark Surface (F17) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150B, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153B) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Horizogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Coast Presence (A8) (LRR P, T) Depleted Below Durk Surface (F1) (MLRA 151) Thick Dark Surface (A11) Depleted Obark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S7) (LRR P, T, U) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (A15) Horizogen Sulfide (A4) Depleted Dark Surface (F7) Redox Depressions (F8) Wery Shallov Other (Explain Coast Prairie Redox (A16) (MLRA 150A) Depleted Dark Surface (F13) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Deflete Obark Surface (F17) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150B, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153B) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Horizogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Coast Presence (A8) (LRR P, T) Depleted Below Durk Surface (F1) (MLRA 151) Thick Dark Surface (A11) Depleted Obark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S7) (LRR P, T, U) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (A15) Horizogen Sulfide (A4) Depleted Dark Surface (F7) Redox Depressions (F8) Wery Shallov Other (Explain Coast Prairie Redox (A16) (MLRA 150A) Depleted Dark Surface (F13) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Deflete Obark Surface (F17) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150B, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153B) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	
Histosol (A1)	Pore Lining, M=Matrix.
Histic Epipedon (A2)	roblematic Hydric Soils ³ ;
Black Histic (A3)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Redox Depressions (F8) Very Shallov Tom 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 Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont F10 (LRR U) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153I) Restrictive Layer (If observed): Type: Depth (inches): Remarks:	
Stratified Layers (A5)	ertic (F18) (outside MLRA 150A,E oodplain Soils (F19) (LRR P, S, T
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Expleted Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (LRR P, T, U) wetland the Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153t) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	Bright Loamy Soils (F20)
Muck Presence (A8) (LRR U)	3B)
☐ 1 cm Muck (A9) (LRR P, T) ☐ Marl (F10) (LRR U) ☐ Other (Explaid Depleted Below Dark Surface (A11) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Thick Dark Surface (A12) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) Sindicators ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Umbric Surface (F13) (LRR P, T, U) Wetland F ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Detta Ochric (F17) (MLRA 151) ☐ Unless di ☐ Sandy Gleyed Matrix (S4) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Sandy Redox (S5) ☐ Pledmont Floodplain Soils (F19) (MLRA 149A) ☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153I ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Restrictive Layer (If observed): Type: Depth (inches): ☐ Hydric Soil Press	Material (TF2)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Tron-Manganese Masses (F12) (LRR O, P, T) Sindicators Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sendy Redox (S5) Sandy Redox (S5) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153I) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	w Dark Surface (TF12)
Thick Dark Surface (A12)	in in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland I Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless di Sandy Geleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153I) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil President Stripped Matrix (S6) Hydric Soil President Stripped Hydric Stripped Hydric Stripped Hydric Stripped Hydric Stripped Hydric Hydric Stripped Hydric Stripped Hydric Stripped Hydric Stripp	of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153I) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Press	nydrology must be present,
□ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153I) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: □ Depth (inches): □ Hydric Soil Press Remarks:	sturbed or problematic.
☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153I ☐ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Presentation.	
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soll Prese	2)
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Preserved:	-1
Depth (inches): Hydric Soil Press Remarks:	
Remarks:	
	ent? Yes X No
Beaumont Silty Clay. Soil has been plowed and artificially flooded for rice	

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: T	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 80 300 000 0
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none):	diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A	at: 29.747716P Long: -94.37862	
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent	A CONTRACTOR OF THE PARTY OF TH	VI classification: PF
Are climatic / hydrologic conditions on the site typical for this		xplain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X s		stances" present? Yes No X
[] [] [] [] [] [] [] [] [] []		any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	snowing sampling point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	Is the Sampled Area	
Hydric Soil Present? Yes X N	within a Wetland?	Yes X No
Wetland Hydrology Present? Yes X N	0	100
Remarks:		
Sampling point is within a rice field tha	t was farmed in 2015. Levees st	till remain. Vegetation is
indicative of recent rice farming with n		
repeatedly plowed and artificially flood		
V. 105 104 4 4 11 11 11 11 11 11 11 11 11 11 11 1	717	
HYDROLOGY		
Wetland Hydrology Indicators:		dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all		rface Soil Cracks (B6)
The second second of the contract of the second of the sec		arsely Vegetated Concave Surface (B8)
		ainage Patterns (B10)
		oss Trim Lines (B16)
		y-Season Water Table (C2)
		ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
		comorphic Position (D2)
		allow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		C-Neutral Test (D5)
Water-Stained Leaves (B9)		hagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No X De	pth (inches):	
Water Table Present? Yes No X De	pth (inches):	
	pth (inches): Wetland Hydrolog	gy Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well,		/
Describe Necoraca Data (Stream gauge, monitoring well,	achtal priores, previous mapeorona), il available.	
Remarks:		
Area has been artificially flooded for ri	ce farming	

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	Alexabita	Deside	La allocation	Sampling Point: 981
ree Stratum (Plot size:)	% Cover	Dominant Species		Dominance Test worksheet:
	- Periodicus	- Openios	-	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
		-		That A C OBE, TAOIV, SI TAO(A)
			_	Total Number of Dominant
S			_	Species Across All Strata: (B)
h			_	Percent of Dominant Species
i.		-		That Are OBL, FACW, or FAC: 100% (A/
i		-		
1			3	Prevalence Index worksheet:
5,		3.		Total % Cover of:Multiply by:
	0%	= Total Co	WAR	OBL species x 1 =
50% of total cover:0				FACW species x 2 =
	20% 0	total cove	2 0.00	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
_ Sesbahia drummondii	_ 5	Yes	FACW	
\ <u></u>			-	UPL species x 5 =
n <u></u>			9.1	Column Totals:0 (A)0
			X-	Prevalence Index = B/A =
		-		
		(2)		Hydrophytic Vegetation Indicators:
			_	1 - Rapid Test for Hydrophytic Vegetation
<u> </u>			·	2 - Dominance Test is >50%
k				3 - Prevalence Index is ≤3.0¹
	5%	= Total Co	ver	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:3	% 20% of	total cove	r: 1%	-
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
Eleochans montevidensis	50	Yes	FACW	be present, unless disturbed or problematic.
P. Eleochans parvula	10	No	OBL	Definitions of Four Vegetation Strata:
· 	20	Yes	FACW	Definitions of Four Vegetation Strata.
, Junicus brachycarpus		*		Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
4. Oryza sativa	15	No	FACW	more in diameter at breast height (DBH), regardless
5, Cyperus virens	5	No	FACW	height.
5.		8		Sapling/Shrub - Woody plants, excluding vines, less
7		-	~	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		~		Harb. All barbarancus (non woods) planta regardles
		3		Herb - All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
		-		or size, and visual prairie tode triain size it tall.
		-		
0		-	_	
0		-	=	Woody vine - All woody vines greater than 3.28 ft in height.
0		3	=	
0	100%	= Total Co		Woody vine - All woody vines greater than 3.28 ft in height.
10 11 12	100%	= Total Co		
10	100%	= Total Co		
10	100% 20% of	= Total Co		
10	100% 20% of	= Total Co		
10	100% 20% of	= Total Co	r: _20%	
10	100% 20% of	= Total Co	r: _20%	
10	100% 20% of	= Total Co	r: _20%	
10	100% 20% of	= Total Co	r: _20%	
10	100% 20% of	= Total Co	r: 20%	Hydrophytic
10	100% 20% of	= Total Co	r: _20%	height. Hydrophytic
Woody Vine Stratum (Plot size:) 1.) 2.	100% 20% of 20% of 20% of 20% of 20% of	= Total Co f total cove	r: _20%	Hydrophytic

	scription: (Describ	e to the dept	need	ded to docur	ment the	indicator	or confir	m the absence	of Indicators.)
Depth	Matrix				x Feature		13.0	-	-
(inches)	Color (moist)	%	Col	or (moist)	%	Type'	Loc	Texture	Remarks
0-3	10YR 8/2	100	_			-		Sit	-
3-24	10YR 2/1	80	10YR-4)	16	20	RM	M	clay	
						-			
						2			
						-		-	-
						-	_		
					×	-	-	-	-
							4		
Type: C=0	Concentration, D=D	epletion, RM=	Reduc	ed Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
lydric Soi	Indicators: (Appl	licable to all L	RRs,	unless other	rwise no	ted.)			for Problematic Hydric Soils ³ ;
_ Histoso	ol (A1)			Polyvalue Be	low Surf	ace (S8) (I	RRS, T,	U) 1 cm	Muck (A9) (LRR O)
Histic E	Epipedon (A2)			Thin Dark Su	urface (S) (LRR S,	T, U)	☐ 2 cm	Muck (A10) (LRR S)
Black H	Histic (A3)			Loamy Muck	y Minera	(F1) (LRF	(0)	☐ Redu	ced Vertic (F18) (outside MLRA 150A,
Hydrog	gen Sulfide (A4)			Loamy Gleye	ed Matrix	(F2)		☐ Piedm	nont Floodplain Soils (F19) (LRR P, S, 7
	ed Layers (A5)			Depleted Ma	1			The second secon	alous Bright Loamy Soils (F20)
	c Bodies (A6) (LRR			Redox Dark					RA 153B)
	łucky Mineral (A7) (_	Depleted Da					Parent Material (TF2)
	resence (A8) (LRR			Redox Depre		-8)			Shallow Dark Surface (TF12)
	luck (A9) (LRR P, T		_	Marl (F10) (L	and the second second			U Other	(Explain in Remarks)
	ed Below Dark Surf	ace (A11)	_	Depleted Oc				· 3	and any of the colored of the control of the same
	Dark Surface (A12) Prairie Redox (A16)	/MI DA 150A	200	Iron-Mangan				Contract of the contract of th	cators of hydrophytic vegetation and tland hydrology must be present.
	Mucky Mineral (S1)			Umbric Surfa Delta Ochric			, 0)		less disturbed or problematic.
	Gleyed Matrix (S4)	(LKK 0, 3)	-	Reduced Ver			.0Δ 150E		less disturbed or problematic.
	Redox (S5)		_	Piedmont Flo				A contractor	
	d Matrix (S6)						The second second	RA 149A, 1530	2, 153D)
	urface (S7) (LRR P	, S, T, U)							* *****
	Layer (if observe								
Type:									
Depth (i	nches):		=					Hydric Soi	Present? Yes X No
Remarks:								Copenieses.	277

City/County: Chambers County Sampling Date: April 6, 20
State: Texas Sampling Point: 982
Section, Township, Range:
Local relief (concave, convex, none): diked - farmed Slope (%): ~1
9.748758° Long: -94.378275° Datum:
opes, rarely flooded NWI classification: None
of year? Yes No (If no, explain in Remarks.) antly disturbed? Are "Normal Circumstances" present? Yes No ly problematic? (If needed, explain any answers in Remarks.) ving sampling point locations, transects, important features,
Is the Sampled Area within a Wetland? Yes No
is farmed in 2015. Levees still remain. Vegetation is trous adventive wetland species. Soils have been
Secondary Indicators (minimum of two require
(B15) (LRR U) fide Odor (C1) ospheres along Living Roots (C3) educed Iron (C4) educed Iron (C4) eduction in Tilled Soils (C6) rface (C7) in Remarks) Drainage Patterns (B10) Moss Trim Lines (B16) Cry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
ches): ches): Wetland Hydrology Present? Yes NoX
photos, previous inspections), if available:
arming
The second secon

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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
ree Stratum (Plot size:)		Species?		Number of Dominant Species
	7.0	2 = 1		That Are OBL, FACW, or FAC:(A)
			5	
			-	Total Number of Dominant Species Across All Strata: (B)
				opedies Across Air Otrata(b)
				Percent of Dominant Species That Are ORL EACH or EAC: 100% (A/A
				That Are OBL, FACW, or FAC:(A/I
(₁		-	_	Prevalence Index worksheet:
·		-	_	Total % Cover of: Multiply by:
ii.				OBL species x1 =
	096	= Total Cove	r	
50% of total cover:	20% of	total cover:	0%	FACW species x 2 =
apling/Shrub Stratum (Plot size:)				FAC species x 3 =
		A		FACU species x 4 =
				UPL species x 5 =
				Column Totals:0 (A)0 (E
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
*====				1 - Rapid Test for Hydrophytic Vegetation
		2		☐ 2 - Dominance Test is >50%
		6 - 18		3 - Prevalence Index is ≤3.01
	0%	= Total Cove	r	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	7.740			Problematic Hydrophytic Vegetation (Explain)
lerb Stratum (Plot size:)		14.161 24.341 t,		Name of the Control o
Eleochans montevidensis	80	Yes I	FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				The Control of Manager Control of the Control of th
Eleocharis parvula	10		OBL	Definitions of Four Vegetation Strata:
Junicus brachycarpus	2	No I	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
Oryza saliva	20	No s	OBL	more in diameter at breast height (DBH), regardless
Alópecurus carólinensis	2	No	FACW	height.
Mopeculus carolinerisis				0 11 10 1 11 11 11 11 11
		-	_	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
	-,			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles
				than 3 in. DBH and greater than 3.28 ft (1 m) tall
				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
0				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
0				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496	= Total Cove	= = =	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496	= Total Cove	= = =	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496 :	= Total Covertotal cover:	= = =	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	114% :	= Total Cover:	= = =	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496 :	= Total Covertotal cover:	- - - :r 23%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496 ;	= Total Cover:	- - - :r 23%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	11496 ;	= Total Cover:	- - - :r 23%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	11496 ;	= Total Cover:	- - - :r 23%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	11496 :	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	11496 ; 796 20% of	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
5	11496 :	= Total Covertotal cover:		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic
50% of total cover: 60% of	11496 20% of 20% of 20% of elow).	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	11496 20% of 20% of 20% of elow).	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	11496 20% of 20% of 20% of elow).	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	11496 20% of 20% of 20% of elow).	= Total Cover:		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

	cription: (Descri		th nee				or confir	m the absence	of Indicators.)
Depth	Matrix				x Featur		1.2.2	Tankina	Remarks
(inches) 3-2	Color (moist) 10YR 5/2	100		or (moist)	%	Type	Loc		Remarks
	-		40000		-		-	_	-
2-6	10YR 4/2	90	10YR-4		10	RM	14	clay	-
6-24	10YR 7/2	60	10.YR 6	1/6	40	RM	M	sandy Clay	
	-	-				<u> </u>			La constant de la con
		<u> </u>				3			3
		= 0					-		
						-			
Type: C=C	oncentration, D=D	enletion RM	=Reduc	ed Matrix MS	S=Maske	d Sand Gr	ains.	2) ocation:	PL=Pore Lining, M=Matrix.
	Indicators: (App						un rui.		for Problematic Hydric Soils ³ :
Histoso	I (A1)			Polyvalue Be	low Surf	ace (S8) (I	RRS, T,	U) 1 cm l	Muck (A9) (LRR O)
Histic E	pipedon (A2)			Thin Dark Su					Auck (A10) (LRR S)
Black H	listic (A3)			Loamy Muck					ed Vertic (F18) (outside MLRA 150A, E
_ Hydrog	en Sulfide (A4)			Loamy Gleye	ed Matrix	(F2)		☐ Piedm	ont Floodplain Soils (F19) (LRR P, S, T
Stratifie	d Layers (A5)			Depleted Ma	trix (F3)			☐ Anoma	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRF	R P, T, U)		Redox Dark	Surface	F6)		(ML	RA 153B)
	ucky Mineral (A7)		_	Depleted Da					arent Material (TF2)
	resence (A8) (LRF		님	Redox Depre		F8)			Shallow Dark Surface (TF12)
	uck (A9) (LRR P,		무	Marl (F10) (L	and the second second			U Other	(Explain in Remarks)
	d Below Dark Surf		Η	Depleted Oc				Since	of the officers of the constitution of the
	ark Surface (A12)		유	Iron-Mangan					cators of hydrophytic vegetation and land hydrology must be present.
	Prairie Redox (A16 Mucky Mineral (S1		" 🖶	Umbric Surfa Delta Ochric			, 0)		ess disturbed or problematic.
	Gleyed Matrix (S4)	The state of the s	吊	Reduced Ver			NA 150E		ess disturbed or problematic.
	Redox (S5)		Ħ	Piedmont Flo					
	d Matrix (S6)		百				The same of the same	RA 149A, 153C	, 153D)
	urface (S7) (LRR P	, S, T, U)			-				,
	Layer (if observe							A 1	
Type:	3-2	4							
Depth (in	iches):							Hydric Soil	Present? Yes No X
Remarks:	-							T. See Colons	

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Point: 983
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.7	747716° Long: -94.378822° Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, r	rarely flooded NWI classification: PF
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:	Is the Sampled Area within a Wetland? Yes No No
	farmed in 2015. Levees still remain. Vegetation is ous adventive wetland species. Soils have been
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	moss Trim Lines (B16) pheres along Living Roots (C3) pucted Iron (C4) puction in Tilled Soils (C6) pe (C7) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes No Depth (inche Water Table Present? Yes No Depth (inche Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	es): Wetland Hydrology Present? Yes X No
S. Carlot	
Area has been artificially flooded for rice far	ming

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	Abrahita	Deside	- Indianakan	Dambanas Test underbest
ree Stratum (Plot size:)	% Cover		Indicator Status	Dominance Test worksheet:
·		-	- Otalus	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
		-		That Accobe, TAOIV, SITAO.
			_	Total Number of Dominant
S.,			_	Species Across All Strata: (B)
h			_	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A)
i		-		
1			-	Prevalence Index worksheet:
3,		8	-	Total % Cover of: Multiply by:
	0%	= Total Co	ver	OBL species x 1 =
50% of total cover:0				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	20,000	total cove	-	FAC species x 3 =
				FACU species x 4 =
			-	UPL species x 5 =
2			<u> </u>	Column Totals: 0 (A) (E
On		-	-	Column Totals (A) (E)
		~		Prevalence Index = B/A =
)				Hydrophytic Vegetation Indicators:
δ_n		+	8	X 1 - Rapid Test for Hydrophytic Vegetation
1.		92	.8	2 - Dominance Test is >50%
3.		4	2	☐ 3 - Prevalence Index is ≤3.01
	0%			
50% of total cover: 0	- T+40-1			Problematic Hydrophytic Vegetation (Explain)
	20% 01	total cove	. 000	
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
_ Eleochans montevidensis	20	Yes	FACW	be present, unless disturbed or problematic.
2. Eleochans parvula	10	No	OBL	Definitions of Four Vegetation Strata:
3, Junicus brachycarpus	25	Yes	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
Legochans cellulosa	20	Yes	OBL	more in diameter at breast height (DBH), regardless
Ludwigia pepkides	5	No	OBL	height.
Jungus aduminata	15	No	OBL	Conting/Charts Mandy clants avaluating vince to
7 Alopecurus carolinianus	5	No	FACW	Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall
3		-	-	Herb - All herbaceous (non-woody) plants, regardles
)				of size, and woody plants less than 3.28 ft tall.
0	-	-	_	Woody vine - All woody vines greater than 3.28 ft in
1,		3	3	height.
		3	1	
2				
12	100%	= Total Co	ver	
50% of total cover:50				
50% of total cover:	20% of	total cove		
50% of total cover:	20% of	total cove		
50% of total cover:	20% of	total cove		
50% of total cover:50% Noody Vine Stratum (Plot size:) 23	20% of	total cove		
50% of total cover:50% Noody Vine Stratum (Plot size:) 1) 23	20% of	total cove		
50% of total cover:50 Noody Vine Stratum (Plot size:) 1 2 3 4	20% of	total cove		Hydrophytic
50% of total cover:50 Noody Vine Stratum (Plot size:) 1 2 3 4	20% of	total cove	r: 20%	Vegetation
50% of total cover:50% Noody Vine Stratum (Plot size:) 23	20% of	total cove	r: _20%	
50% of total cover:	20% of	total cove	r: _20%	Vegetation

	The second second second	e to the dept	h needed to docur			or confirm	n the absence	of Indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc2	Texture	Remarks
0-3	10YR 6/2	100	Soloi (moist)				Sit	- Normany
3-7	10YR 4/1	90	10YR-4/6	10	RM	M	day	•
7-10	10YR 3/4	95	10YR 4/6	- 5			day	
13.				_	RM	M	-	
10-24	10YR 4/1	95	10YR 4/6	5	RM	_M	clay	
	_			-	-	<u>-</u>		
	-			-			-	
	-				-	-		
			Reduced Matrix, M			ains.		PL=Pore Lining, M=Matrix.
	A CONTRACTOR OF THE PROPERTY O	icable to all	LRRs, unless othe					for Problematic Hydric Soils ³ ;
Histosol			Polyvalue Be					uck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su	V-1-1-1				uck (A10) (LRR S)
Black Hi			Loamy Muck	The second second		(0)		ed Vertic (F18) (outside MLRA 150A,B
	en Sulfide (A4)		Loamy Gleye		(F2)			ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		501		The second secon	ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR		Redox Dark				Annual Control of the	A 153B)
	icky Mineral (A7) (I		The second secon					rent Material (TF2)
	resence (A8) (LRR		Redox Depre		-8)			nallow Dark Surface (TF12)
	ick (A9) (LRR P, T		Marl (F10) (L				Other (Explain in Remarks)
	d Below Dark Surfa	ace (A11)	Depleted Oc				- 3: -	
	ark Surface (A12)		☐ Iron-Mangan					ators of hydrophytic vegetation and
	rairie Redox (A16)				The second of the second	, u)		and hydrology must be present,
	Mucky Mineral (S1)	(LRR O, S)	Delta Ochric					ss disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
Sandy R	Redox (S5)		Piedmont Flo			The second second	The Part of the Control of the Contr	areas.
T 000			Anomalous E	Bright Los	imy Soils (F20) (NIL	RA 149A, 153C,	1530)
Stripped		C T 10						
Dark Su	rface (S7) (LRR P,						1	
Dark Sur Restrictive								
Dark Su Restrictive I Type:	rface (S7) (LRR P, Layer (if observed							
Dark Sur Restrictive	rface (S7) (LRR P, Layer (if observed						Hydric Soil	Present? Yes X No
Dark Su Restrictive I Type:	rface (S7) (LRR P, Layer (if observed						Hydric Soil	Present? Yes X No
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):	as been plow		d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (inc Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur Restrictive I Type: Depth (ind Remarks:	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		
Dark Sur lestrictive I Type: Depth (inc	rface (S7) (LRR P, Layer (If observed ches):	1):			d artific	ially flo		

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Te:	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 100 1000 0000 0
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none):	ked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.752081° Long: -94.377132°	
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent		classification: PF
Are climatic / hydrologic conditions on the site typical for this		lain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X s		
]		y answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	snowing sampling point locations, tran	isects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	Is the Sampled Area	
Hydric Soil Present? Yes X N	within a Wetland?	es X No
Wetland Hydrology Present? Yes X N	0	
Remarks:		
Sampling point is within a rice field tha	t was farmed in 2015. Levees still	ll remain. Vegetation is
indicative of recent rice farming with no		
repeatedly plowed and artificially flood		
	717	
HYDROLOGY		
Wetland Hydrology Indicators:		ry Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all		ace Soil Cracks (B6)
The second second of the contract of the second of the sec		sely Vegetated Concave Surface (B8)
		nage Patterns (B10)
		s Trim Lines (B16)
		Season Water Table (C2)
		fish Burrows (C8) ration Visible on Aerial Imagery (C9)
		morphic Position (D2)
		low Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		-Neutral Test (D5)
Water-Stained Leaves (B9)	Spha	agnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No De	oth (inches):	
Water Table Present? Yes No De	oth (inches):	
	oth (inches): Wetland Hydrology	Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, a	aerial photos, previous inspections), if available:	
Describe Notice Data (Stream googs, montering well,	renar protest, previous mappedional, if available.	
Remarks:		
	12.00	
Area has been artificially flooded for ri-	ce farming	

US Army Corps of Engineers

		D	to the effect that	Sampling Point; 984
Tree Stratum (Plot size:)	% Cover		Indicator	Dominance Test worksheet:
· /		-	-	Number of Dominant Species That Are OBL, FACW, or FAC:5 (A)
		_		marree est, radii, si radi
			_	Total Number of Dominant
.			_	Species Across All Strata: (B)
A			_	Percent of Dominant Species
i:		-		That Are OBL, FACW, or FAC:(A/
B		-	_	Prevalence Index worksheet:
7			-	Total % Cover of: Multiply by:
3,		5,	-	OBL species x 1 =
	0%	= Total Co	ver	
50% of total cover:	20% of	total cove	r: 0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
_ Sesbania drummondii	5	Yes	FACW	FACU species x 4 =
		-		UPL species x 5 =
h			× .	Column Totals:0 (A)0 (E
	-		-	Description below Bit
		-		Prevalence Index = B/A =
5.		-		Hydrophytic Vegetation Indicators:
Š		_		
			-	1 - Rapid Test for Hydrophytic Vegetation
			=	2 - Dominance Test is >50%
7		-		1 F
3	5%	= Total Co	ver	2 - Dominance Test is >50%
3	5%	= Total Co	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
3	5%	= Total Co	ver	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation (Explain)
3	5%	= Total Co	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
3	5% 20% of	= Total Co total cove	ver r: _1%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover;	5% 20% of	= Total Co total cove	ver r: 1%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata:
50% of total cover;	5% 20% of	= Total Co total cove	ver r: 1% OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover;	5% 20% of 15 10 30	= Total Cove total cove Yes No Yes	obl FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata:
50% of total cover:	5% 20% of 15 10 30 15	= Total Co total cove Yes No Yes	OBL OBL OBL OBL OBL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover:	5% 20% of 15 10 30 15 2 10	= Total Co total cove Yes No Yes Yes No No	OBL OBL FACW OBL FACW OBL FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les
50% of total cover:	5% 20% of 15 10 30 15 2 10 10	= Total Cove Yes No Yes Yes No No No	OBL OBL FACW OBL FACW OBL FACW OBL FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lesthan 3 in. DBH and greater than 3.28 ft (1 m) tall.
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Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slope Are climatic / hydrologic conditions on the site typical for this time Are Vegetation, Soil, or Hydrology signific Are Vegetation, Soil, or Hydrology natural SUMMARY OF FINDINGS - Attach site map show Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that an	e of year? Yes
Landform (hillslope, terrace, etc.): oxbow Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 2 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slope Are climatic / hydrologic conditions on the site typical for this time Are Vegetation , Soil , or Hydrology	Local relief (concave, convex, none): CONCAVE 29.753286° Long: -94.378231° Datum: PFO I so, rarely flooded NWI classification: PFO I e of year? Yes No (If no, explain in Remarks.) cantly disturbed? Are "Normal Circumstances" present? Yes No ally problematic? (If needed, explain any answers in Remarks.) wing sampling point locations, transects, important features Is the Sampled Area within a Wetland? Yes No Secondary Indicators (minimum of two requestion) Secondary Indicators (minimum of two requestion) Surface Soil Cracks (BB)
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 2 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slope Are climatic / hydrologic conditions on the site typical for this time Are Vegetation , Soil , or Hydrology signific Are Vegetation , Soil , or Hydrology natural SUMMARY OF FINDINGS – Attach site map show Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that an High Water Table (A2) Hydrogen Sul	29.753286° Long: -94.378231° Datum:
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High Water Table (A2) Saturation (A3) Marl Deposits Hydrogen Sul	
Saturation (A3)	s (B15) (LRR U) Drainage Patterns (B10)
□ 147 × 14 15 7541	ulfide Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhiz	zospheres along Living Roots (C3) Dry-Season Water Table (C2)
	Reduced Iron (C4) Crayfish Burrows (C8)
	Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C
☐ Algal Mat or Crust (B4) ☐ Thin Muck Su☐ Iron Deposits (B5) ☐ Other (Explain	urface (C7) Geomorphic Position (D2) in in Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
	nches); _0-2
Water Table Present? Yes No No Depth (in	
	nches): 3 Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	

US Army Corps of Engineers

Tree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet:
Celtis laevigata	10	No.	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:6 (A)
Taxodium distichum	15	Yes	OBL	
Fraxinus pensylvanica	30	Yes	FACW	Total Number of Dominant Species Across All Strata: (B)
Salix nigra	5	No	ÓBL.	
		-	-	Percent of Dominant Species That Are ORL EACIN or EAC: 100% (A/
		-		That Are OBL, FACW, or FAC: 100% (A/
		-	-	Prevalence Index worksheet:
		-		Total % Cover of: Multiply by:
	60%	= Total Cov	ar.	OBL species x 1 =
50% of total cover: 30%	-			FACW species x 2 =
	20 % 01	total cover		FAC species x 3 =
apling/Shrub Stratum (Plot size:) Fraxinus pensylvanica	to.	Yes	FACW	FACU species x 4 =
		-	FACT	UPL species x 5 =
				Column Totals: 0 (A) 0 (E
			_	
				Prevalence Index = B/A =
-				Hydrophytic Vegetation Indicators:
	-	-		▼ 1 - Rapid Test for Hydrophytic Vegetation
	_	-	6	2 - Dominance Test is >50%
	_	-	يسلع	3 - Prevalence Index is ≤3.01
	10%	= Total Cov	er	
50% of total cover: 5%	10%			☐ 3 - Prevalence Index is ≤3.0¹ ☐ Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover;5%	10%			Problematic Hydrophytic Vegetation (Explain)
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50% of total cover;5% erb Stratum (Plot size;) Alternarithers philoxeroides Eleochans cellulosa	20% of	total cover	2% OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
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50% of total cover;	20% of 20% of 30 15 5 10 10	Yes Yes No No	OBL OBL FAC FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les
50% of total cover:	20% of 20% of 30 15 5 10 10 10	Yes Yes No	OBL OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover:	20% of 20% of 30 15 5 10 10 10 10	Yes Yes No No	OBL OBL FAC FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
50% of total cover;	20% of 20% of 30 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Yes Yes No No	OBL OBL FAC FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall.
## Stratum (Plot size:) Alternarthers philoxeroides Eleochans cellulosa Juncus effusus Iva annua Rumex crispus Cyperus virens Cynoden dadylon 0	20% of 20% of 20 30 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Yes Yes No No	OBL OBL FAC FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
## Stratum (Plot size:) Alternarithers philoxeroides Eleochans cellulosa Juncus effusus Iva annua Rumex crispus Cyperus virens Cynoden dadylon 1	20% of 20% of 20 30 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Yes Yes No No	OBL OBL FAC FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
## Stratum (Plot size:) Alternarithers philoxeroides Eleochans cellulosa Juncus effusus Iva annua Rumex crispus Cyperus virens Cynoden dadylon 1	20% of 20% of 30 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Yes Yes No No No	OBL OBL OBL FAC FAC FACW FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in the property of the property
50% of total cover;	20% of 20% of 30 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Yes Yes No No No	OBL OBL OBL FAC FAC FACW FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in the property of the property
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50% of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;5% Some of total cover;	20% of 20	Yes Yes Yes No No No Total Cover	OBL OBL OBL FAC FAC FACW FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in the property of the property
50% of total cover;	20% of 20% of 20% of 15 5 10 10 10 10 10 10 10 10 10 10 10 10 10	total cover Yes Yes No No No Total Cover Total Cover	OBL OBL OBL OBL FAC FAC FACU FACU FACU FACU FACU FACU F	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in the property of the property
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So% of total cover:	20% of 20% of 15 5 10 100% 100% 100% 100% 100% 100% 1	total cover Yes Ves No No No Total Cover Total Cover	OBL OBL OBL OBL FAC FAC FACU FACU er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless theight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date	April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Poin	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Sk	ope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	30 750 0550	Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent		
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation X, Soil X, or Hydrology X s	significantly disturbed? Are "Normal Circumstances" present? Yes	No X
	naturally problematic? (If needed, explain any answers in Remarks.)	
	showing sampling point locations, transects, important	
SOMMANT OF FINDINGS - Attach site map	snowing sampling point locations, transects, important	reatures, etc.
Hydrophytic Vegetation Present? Yes X	Is the Sampled Area	
Hydric Soil Present? Yes N	within a Wetland? Yes X No	3
Wetland Hydrology Present? Yes X No	0	_
Remarks:		
Sampling point is within a rice field tha	at was farmed in 2015. Levees still remain. Vege	tation is
indicative of recent rice farming with nu	umerous adventive wetland species. Soils have I	been
repeatedly plowed and artificially flood	ed.	
	10	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minimum	of two required)
Primary Indicators (minimum of one is required; check all t		Toward water
	Fauna (B13) Sparsely Vegetated Concave	e Surface (B8)
	posits (B15) (LRR U) Drainage Patterns (B10)	
	en Sulfide Odor (C1) Moss Trim Lines (B16)	0.5
	d Rhizospheres along Living Roots (C3) Dry-Season Water Table (C3	2)
	ce of Reduced Iron (C4) Crayfish Burrows (C8)	(CO)
N 1	Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial I Geomorphic Position (D2)	magery (C9)
	Explain in Remarks) Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR	T, U)
Field Observations:		27.80
Surface Water Present? Yes X No Dep	pth (inches); 0-3	
Water Table Present? Yes No X Dep	pth (inches):	
Saturation Present? Yes X No Dep	pth (inches); 6 Wetland Hydrology Present? Yes X	No 🔲
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, a	aeriai priotos, previous irispections), ii available.	
Remarks:		
Professional Control of the Control		
Area has been artificially flooded for rid	ce farming	
The second secon		
ha a		

US Army Corps of Engineers

Tree Stratum (Plot size:)		Dominant	Indicator	Dominance Test worksheet:
ree Stratum (Plot size:		Species?		
		Thermore	8 1	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
			_	, , , , , , , , , , , , , , , , , , ,
				Total Number of Dominant
			_	Species Across All Strata: (B)
In		-		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A)
B		-		Description of Index weather etc
7				Prevalence Index worksheet:
3,		3,	-	Total % Cover of: Multiply by:
	0%	= Total Co	er	OBL species x 1 =
50% of total cover: 0%	20% of	total cover	0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)		5 Brens (5-2) 40		FAC species x 3 =
				FACU species x 4 =
	_			UPL species x 5 =
2				Column Totals: 0 (A) (E
v <u> </u>	_		_	V. 9
				Prevalence Index = B/A =
j	_			Hydrophytic Vegetation Indicators:
3		100	×	■ 1 - Rapid Test for Hydrophytic Vegetation
7		30	ō.	2 - Dominance Test is >50%
		V		
В.		13	2	7 3 Decumber of Indian in <2.01
	0%		er	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation ⁱ (Explain)
50% of total cover;% Herb Stratum (Plot size:)	20% of	= Total Cover	ver :_0%	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover;	0% 20% of	= Total Cover	obl	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover;	0% of 20% of 15	= Total Cover	OBL OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover;	096 20% of 50 15	Total Cover	OBL FACW	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover;	20% of 50 15 15 20	= Total Cover total cover Yes No No Yes	OBL OBL FACW OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
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50% of total cover;	996 20% of 50 15 15 20 5	Total Cover Yes No No Yes No No No No	OBL OBL FACW OBL FACW OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
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So% of total cover:	20% of 50 15 15 20 5 5 5 110% of 50 110% 20% of 50 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	= Total Cover total cover Yes No No No No Total Cover No	OBL OBL OBL FACW OBL FACW OBL FACW OBL FACW OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft ir
50% of total cover:	20% of 50 15 15 20 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	= Total Cover Yes No No No No No Total cover Total Cover Total Cover Total Cover	OBL OBL OBL FACW OBL FACW OBL FACW OBL FACW OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 50 15 15 20 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	= Total Cover Yes No No No No No Total cover Total Cover Total Cover Total Cover	OBL OBL OBL FACW OBL FACW OBL FACW OBL FACW OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover;	20% of 50 15 15 20 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	= Total Cover Yes No No No No No Total cover Total Cover Total Cover Total Cover	OBL OBL OBL FACW OBL FACW OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover;	20% of 50 15 15 20 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	= Total Cover Yes No No No No No Total cover Total Cover Total Cover Total Cover	OBL OBL FACW OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

	a horomoralism				or commi	n the absence of	indicators.)
Depth Matrix inches) Color (moist)	%	Color (moist)	ox Feature %	Type'	Loc2	Texture	Remarks
1-24 7.5 YR 2/0		10YR 8/2	5	RM	М	clay	TVOTIMITIO.
				14	,		
				-	_		
				<u> </u>			
	اينست		-	_			
-			-	-			
		Salara a Rivino Ri	10 14	-	-	21 222 222 2	r-Basaltataa Manaa
Type: C=Concentration, D=D lydric Soil Indicators: (App	-				ains.		L=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ ;
Histosol (A1)		☐ Polyvalue B			.RR S, T,	U) 🔲 1 cm Mu	ck (A9) (LRR O)
Histic Epipedon (A2) Black Histic (A3)		☐ Thin Dark S					ck (A10) (LRR S)
☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4)		☐ Loamy Muc ☐ Loamy Gley	The second second		(0)	The second secon	l Vertic (F18) (outside MLRA 150A,I t Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5)		X Depleted Ma		0/			us Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR		Redox Dark				Annual Control of the	(153B)
		☐ Depleted Da					ent Material (TF2) allow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, 1		Mari (F10) (0)			xplain in Remarks)
Depleted Below Dark Surf	A CONTRACTOR OF THE PARTY OF TH	Depleted O		(MLRA 1	51)	_	,,
Thick Dark Surface (A12)	ALC: 22 . 255 or	☐ Iron-Mangai					ors of hydrophytic vegetation and
Coast Prairie Redox (A16) Sandy Mucky Mineral (S1)		Umbric Surf			, u)		nd hydrology must be present, s disturbed or problematic.
Sandy Gleyed Matrix (S4)	The state of the s	Reduced Ve			0A, 150B		suistanced of problematic.
Sandy Redox (S5)		☐ Piedmont Fi	loodplain S	oils (F19)	(MLRA 1	49A)	
Stripped Matrix (S6)		☐ Anomalous	Bright Loa	my Soils (F20) (MLF	RA 149A, 153C, 1	53D)
Dark Surface (S7) (LRR Plestrictive Layer (if observe						1	
Type:	71.						
Depth (inches):						Hydric Soil P	resent? Yes X No
emarks:							

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Point; DP-3
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29	9.758919° Long: -94.383208° Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes	
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation X, Soil X, or Hydrology X significa	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	y problematic? (If needed, explain any answers in Remarks.)
SOMMARY OF FINDINGS - Attach site map show	ring sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	
Remarks:	
Sampling point is within a rice field that wa	s farmed in 2015. Levees still remain. Vegetation is
	rous adventive wetland species. Soils have been
repeatedly plowed and artificially flooded.	And Constitute (Constitute A. Freeza, Annual (A. Fr
HYDROLOGY	A Section of the sect
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	
Surface Water (A1) Aquatic Fauna	선생 이렇게는 얼마를 되었다.
High Water Table (A2) Marl Deposits	
Saturation (A3) Hydrogen Sulfi	
N (1)	espheres along Living Roots (C3) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Crayfish Burrows (C8)
	educed Iron (C4) Crayfish Burrows (C8) Eduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Sur	그리고 하게 되는 것이 되었다. 이번 이 사람들이 되었다면 하는 것이 되었다면 되었다면 하는 것이 없다면 하는 것이 없다면 하는데 없다면 하
Iron Deposits (B5) Other (Explain	(C) C
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes X No Depth (inc	ihes); <u>0-3</u>
Water Table Present? Yes No X Depth (inc	
Saturation Present? Yes X No Depth (inc	thes): 6 Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:
	Control Control (Control Control Contr
Remarks:	
Area has been artificially flooded for rice fa	irming

US Army Corps of Engineers

: 220% of	Species	FAIC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
; ;20% of	Total Cove Yes Total Cove Yes Total Cove Yos No No No No	wer FAC GBL OBL FACW OBL	That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: OBL species FACW species FACW species FACU species
; 220% of	Total Cove Yes Total Cove Yes Total Cove Yos No No No No	FAC FAC OBL OBL FACW OBL	Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species FACW species FACW species FAC Species FA
; 220% of	Total Cove Yes Total Cove Yes Total Cove Yos No No No No	FAC FAC OBL OBL FACW OBL	Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species FACU species
; 220% of 6	= Total Cove Yes	FAC FAC OBL OBL FACW OBL	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/ Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACU species x4 = UPL species x5 = Column Totals: (A) (E) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
; 220% of 	Total Cove Yes Total Cove Yes Total Cove You Total Cove You No No No No	FAC FAC OBL OBL FACW OBL	That Are OBL, FACW, or FAC: 100% (A/ 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 = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
: 220% of	= Total Cove Yes	FAC FAC OBL OBL FACW OBL	That Are OBL, FACW, or FAC: 100% (A/ 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 = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	Yes	FAC FAC OBL OBL FACW OBL	Total % Cover of: Multiply by: OBL species
20% of	Yes	FAC FAC OBL OBL FACW OBL	Total % Cover of: Multiply by: OBL species
20% of	Yes	FAC FAC OBL OBL FACW OBL	OBL species
20% of	Yes	FAC FAC OBL OBL FACW OBL	FACW species
20% of	Yes	FAC FAC OBL OBL FACW OBL	FAC species
20% of	Yes	FAIC	FACU species x 4 =
20% of	= Total Cove Yos No No No No	OBL OBL FACW OBL	UPL species x 5 = Column Totals: (A) (B) (E) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic. Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	= Total Cove Yos No No No No	OBL OBL FACW OBL	Column Totals: (A) (E Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
20% of	= Total Cove Yos: No No No No	OBL OBL FACW OBL	Column Totals: (A) (E Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
20% of	= Total Cove Yes No No No	OBL OBL FACW OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless.
20% of	= Total Cove Yes No No No	obl Obl Facw	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree − Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	Total Covered to	OBL OBL FACW OBL	
20% of	Total Covered to	OBL OBL FACW OBL	
20% of	Total Covered to	OBL OBL FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	Yes No No No No	OBL OBL FACW OBL	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	Yes No No No No	OBL OBL FACW OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
20% of	Yes No No No No	OBL OBL FACW OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless in the control of
	Yes No No No No	OBL OBL FACW OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless in the control of the con
	No No No	OBL FACW OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless in the control of the con
	No No No	OBL FACW OBL	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
	No No No	FACW OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
	No No	OBL	more in diameter at breast height (DBH), regardless
	No		
	-	FACW	height.
	No		
=	190	OBL	Sapling/Shrub - Woody plants, excluding vines, les
_	-	OBL	than 3 in. DBH and greater than 3.28 ft (1 m) tall
	~		Mante - All books as a visit / and visit de All books as a sandle
	2		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
	_	_	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
_			Woody vine - All woody vines greater than 3.28 ft in
-	-		height.
_	_	-	
_			
20% of	total cove	r: 28%	
	0	~	
		7	1
		_	1
-			VI 100 30
_			Hydrophytic
=			Vegetation Present? Yes X No
20% of	total cove	r: _0%	169
2 27 20 20	0.00		<u> </u>
armi	na.		
	3		
	20% of	20% of total cove	= Total Cover 20% of total cover: 0%

SOIL		Sampling Point: DP-3
Profile Description: (Describe to the depth	needed to document the indicator or confirm	
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
0-24 7.5 VR 2/0 90	0YR 6/2 10 RM M	clay
		12 - 17 7
Type: C=Concentration, D=Depletion, RM=F		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ ;
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U) 1 sm Muck (A9) (LRR O)
Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	□ Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A, E
Hydrogen Sulfide (A4)	■ Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	■ Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	Andrew Assessment Control of the Con
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P,	
Coast Prairie Redox (A16) (MLRA 150A)		wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14	And the second s
Stripped Matrix (S6)	☐ Anomalous Bright Loamy Soils (F20) (MLR.	A 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)		1
Restrictive Layer (if observed):		
Type:	_	
Depth (inches):		Hydric Soil Present? Yes X No
Remarks:		

Project/Site: Middleton Estate 241 ac	City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State: Texas Sampling Point: DP-4
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	_at: 29.758194° Long: -94.384272° Datum:
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 perc	
	Is the Sampled Area within a Wetland? Yes No X
	nt was farmed in 2015. Levees still remain. Vegetation is umerous adventive wetland species. Soils have been led.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Fauna (B13) posits (B15) (LRR U) posits (B15) (LRR U) d Rhizospheres along Living Roots (C3) pe of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) pick Surface (C7) Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Water Table Present? Yes No X Dep	pth (inches): pth (inches): pth (inches): Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, a	aerial photos, previous inspections), if available:
Remarks:	
Area has been artificially flooded for ric	ce farming

US Army Corps of Engineers

	Absolute	Dominan	t Indicator	Dominance Test worksheet:
ree Stratum (Plot size:)			? Status	Number of Dominant Species
		2	8	That Are OBL, FACW, or FAC:4 (A)
		-	-	Total Number of Dominant
		-	2	Species Across All Strata: 4 (B)
<u></u>		-	P	
i.			-	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/E
5.		-		(1745) (1745) (1745)
		-	-	Prevalence Index worksheet:
5,		8.		Total % Cover of: Multiply by:
	0%	= Total Co	Wer	OBL species x 1 =
50% of total cover:0%				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)		total cove	1,	FAC species x 3 =
				FACU species x 4 =
-				UPL species x 5 =
				Column Totals:0 (A)0 (B
n	-			
		_		Prevalence Index = B/A =
·		_	\sim	Hydrophytic Vegetation Indicators:
Š.,	_		100	
				1 - Rapid Test for Hydrophytic Vegetation
	-	-		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
				2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
3	0%	= Total Co	ver	2 - Dominance Test is >50%
50% of total cover:	0%	= Total Co	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation (Explain)
50% offotal cover;0%	0%	= Total Co	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
50% of total cover;0 Herb Stratum (Plot size;) Eleochass cellulosa	0% 20% of	= Total Co total cove	ver r: <u>0%</u>	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover;	0% 20% of 15 30	Total Cove	obl	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover;	0% 20% of 15 30 10	Total Cove No Yes No	OBL OBL FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a
50% of total cover;	0% 20% of 15 30 10 25	No Yes No Yes	OBL OBL FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a
50% of total cover;	0% of 20% of 15 30 10 25 20	No Yes Yes Yes	wer OBL OBL FACW FACW FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a more in diameter at breast height (DBH), regardless of height.
50% of total cover;	0% 20% of 15 30 10 25 20 20	No Yes Yes Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover;	0% 20% of 15 30 10 25 20 20 10	No Yes Yes Yes	wer OBL OBL FACW FACW FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height.
50% of total cover;	0% of 20% of 15 30 10 25 20 20 10	No Yes Yes Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles.
Herb Stratum (Plot size:) [Eleochans cellulosa 2 Alternantha philoseroides 3 Junicus brachycampus 4 Eleochans montevidensis 5 Cyserus virens 6 Oryza sativa 7 Taraxacum officinate 3	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Ves Yes No Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Ves Yes No Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft fall.
50% of total cover;	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Ves Yes No Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Ves Yes No Yes	Wer OBL OBL FACW FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Yes Yes No	OBL OBL FACW FACW FACW FACU OBL FACU FACW FACW FACW FACW FACW OBL FACU	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 20 10 11 130%	Total Coc No Yes No Yes Yes Yes No Total Coc	OBL OBL FACW FACW OBL FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 20 10 11 130%	Total Coc No Yes No Yes Yes Yes No Total Coc	OBL OBL FACW FACW OBL FACW FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 10 10 25 20 10 130% 5 20% of	Total Cc total cove No Yes No Yes Yes Yes No Total Cc total cove	OBL OBL FACW FACW OBL FACW FACW OBL FACW FACW OBL FACW OB	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 10 10 15 20 20 10 10 180% of	Total Cove No Yes No Yes Yes Yes No Total Cove Total Cove	OBL OBL FACW FACW OBL FACW FACW OBL FACW FACW OBL FACW OB	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 15 30 10 25 20 10 10 130% 6 20% of	Total Cc total cove No Yes No Yes Yes Yes No Total Cc total cove	OBL OBL FACW FACW FACW FACW FACW FACW FACW FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	20% of 15 30 10 25 20 10 10 13006 6 20% of	Total Cove No Yes No Yes Yes Yes No Total Cove Total Cove	OBL OBL FACW FACW FACW FACW FACW FACW FACW FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	20% of 15 30 10 25 20 10 10 13006 6 20% of	Total Cove No Yes No Yes Yes Yes No Total Cove Total Cove	OBL OBL FACW FACW FACW FACW FACW FACW FACW FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	096 20% of 15 30 10 25 20 10 10 130% 6 20% of	Total Cove No Yes No Yes Yes Yes No	ver r: 0% OBL OBL FACW FACW OBL FACW FACW OBL race r: 2696	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	20% of 15 30 10 25 20 20 10	Total Cove No Yes No Yes Yes Yes No Total Cove Total Cove	vver r: 0% OBL OBL FACW FACW OBL FACW FACW OBL FACW OBL FACW OBL FACW OBL FACW OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

escription: (Des	cribe to the depth	needed to document the in	dicator or confirm	the absence of inc	Sampling Point: DP-4
	atrix	Redox Features		4000,700 01 1110	ne protest
Color (moi		Color (moist) %	Type Loc2	Texture	Remarks
10YR 4/2	100			silty sandy loam	
10YR 2/1	100		1	clay	
			4 4		
`-Concentration [2-Depletion DM-D	educed Matrix, MS=Masked	Sand Grains	2) ocation: DI -D	ore Lining, M=Matrix.
		Rs, unless otherwise note			roblematic Hydric Soils ³ ;
osol (A1)	A TO STATE OF THE PARTY OF THE	Polyvalue Below Surface			The state of the s
c Epipedon (A2)		☐ Thin Dark Surface (S9)		2 cm Muck (SANTA COLORS NO.
k Histic (A3)		Loamy Mucky Mineral (rtic (F18) (outside MLRA 150A
rogen Sulfide (A4)		Loamy Gleyed Matrix (F			oodplain Soils (F19) (LRR P, S,
tified Layers (A5)		Depleted Matrix (F3)		Anomalous B	Bright Loamy Soils (F20)
anic Bodies (A6) (L	.RR P, T, U)	Redox Dark Surface (Fi	3)	(MLRA 15	3B)
Mucky Mineral (A		Depleted Dark Surface			Vlaterial (TF2)
k Presence (A8) (L	PER ACTION OF THE PER ACTION O	Redox Depressions (F8)		/ Dark Surface (TF12)
Muck (A9) (LRR		Marl (F10) (LRR U)		Other (Expla	in in Remarks)
leted Below Dark S		Depleted Ochric (F11) (Ti Sin de la constante	attender der en entellen and
k Dark Surface (Ar	12) (MLRA 150A)	Iron-Manganese Masse			of hydrophytic vegetation and ydrology must be present.
dy Mucky Mineral		☐ Umbric Surface (F13) (I☐ Delta Ochric (F17) (ML)			sturbed or problematic.
dy Gleyed Matrix (the second section is	Reduced Vertic (F18) (I			starbed or problematic.
dy Redox (S5)		Piedmont Floodplain Sc			
ped Matrix (S6)		Anomalous Bright Loam))
Surface (S7) (LR	R P, S, T, U)	E	a work account		
ive Layer (if obse	rved):				
(inches):				Hydric Soil Prese	ent? Yes No X
ť.					

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York		: Texas Sampling Point: DP-5
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 100 3000 0000 0
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none	e): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.758562° Long: -94.38	
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percentage	ent slopes, rarely flooded	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this		o, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X s		cumstances" present? Yes No X
T 194 PA 195 PA 196		in any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes N	Is the Sampled Area	
Wetland Hydrology Present? Yes N	within a Wetland?	Yes No X
Remarks:	- 1	
Sampling point is within a rice field that indicative of recent rice farming with no repeatedly plowed and artificially flood	umerous adventive wetland sp	
HYDROLOGY		
Wetland Hydrology Indicators:	Sec	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all		Surface Soil Cracks (B6)
	Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
	posits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	en Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized	d Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence	ce of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
	ick Surface (C7)	Geomorphic Position (D2)
H	explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	H	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:		Spriagram moss (Do) (ERR 1, U)
	pth (inches):	
	pth (inches):	
. P. M. J. W. M.		ology Present? Yes No X
(includes capillary fringe)		11.00
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available	e:
Remarks:		
Area has been artificially flooded for ri-	ce farming	

US Army Corps of Engineers

	Abcoluto	Dominan	t Indicator	Dominance Test worksheet:
ree Stratum (Plot size:)			? Status	
	Destruction.	-	-	Number of Dominant Species That Are OBL, FACW, or FAC:4(A)
			-	That Ale OBE, FACIV, SI FAC(A)
			-	Total Number of Dominant
				Species Across All Strata: (B)
			(×)	Percent of Dominant Species
i.		-	-	That Are OBL, FACW, or FAC: 100% (A/
5		-		
7		-		Prevalence Index worksheet:
3,		-		Total % Cover of: Multiply by:
)				OBL species x 1 =
	0%			FACW species x 2 =
50% of total cover:0	% 20% of	total cove	er: _0%	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				
_ Sesbania drummondii	2	Yes	FACW	FACU species x 4 =
		-		UPL species x 5 =
n _				Column Totals:0 (A)0 (E
			_	Same according to the control of
		-	-	Prevalence Index = B/A =
i		_		Hydrophytic Vegetation Indicators:
). 		-	-	1 - Rapid Test for Hydrophytic Vegetation
t		-		2 - Dominance Test is >50%
3.		5	187	☐ 3 - Prevalence Index is ≤3.01
-	2%		wer	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:				Problematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:)	- 100 /00 00	1916/ 5515		Value from the state of the sta
	40	26-	OTN	Indicators of hydric soil and wetland hydrology must
_ Eleocharis parvula	10	No	OBL	be present, unless disturbed or problematic.
2. Alternantha philoxeroides	10	No	OBL	Definitions of Four Vegetation Strata:
, Juncus brachycarpus	30	Yes	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
Alopecurus carolinanus	20	Yés	FACW	more in diameter at breast height (DBH), regardless
5, Onyzá sativa	40	Yes	OBL	height.
	-	8		Carlton (Charle 18/2 value) and a subjection of the
i		<u>e</u>		Sapling/Shrub – Woody plants, excluding vines, less
S		=	-	Sapting/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
5			\equiv	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles
5			-	than 3 in. DBH and greater than 3.28 ft (1 m) tall
5	=	Ž	-	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
5			-	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
6			-	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
6				than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
0	110%	= Total Co	over	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110%	= Total Co	over	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110%	= Total Co	over	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110% of	= Total Co	over 22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110% 20% of	= Total Co	over 22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110% 110% of 20% of	- Total Co		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
5	110% 110% of 20% of	= Total Cove		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:5 Noody Vine Stratum (Plot size:)	110% 110% of 20% of	= Total Cove		than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
5	110% 110% of 20% of	= Total Cototal cove	22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
50% of total cover:50% of total cover:51	110% 110% of 20% of	= Total Cove	22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
5	110% 110% of 20% of 20% of 20%	= Total Cototal cove	over 22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
6	110% 20% of 	= Total Cove	over 22%	than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

SOIL								Sampling Point: DP-5
Profile Des	cription: (Descri	ibe to the dept	th needed to c	document the	indicato	or confi	rm the absence o	
Depth	Matri			Redox Featur			- New years	
(inches)	Color (moist)		Color (mois		Type	Loc	Texture	Remarks
0-6	10YR 4/1	90	75YR 4/6	10	RM	М	silty sandy loam	
8+24	10YR 2/1	95	7.5YR 4/6	5	RM	М	clay	
							1000 45	
							-	
_	-				-	-		
					-	200		
		-0.0		-		9		
					-			
Type: C-C	oncentration, D=I	Depletion PM-	Dadward Matr	iv MS-Macks	ad Sand G	raine	2) ocation: E	PL=Pore Lining, M=Matrix.
	Indicators: (App					i alli 5.		or Problematic Hydric Soils ³ :
Histosol		phodbic to di				IDDCT		ick (A9) (LRR O)
	pipedon (A2)			ue Below Surf ark Surface (S				uck (A10) (LRR S)
	istic (A3)			Mucky Minera				d Vertic (F18) (outside MLRA 150A,
	en Sulfide (A4)			Gleyed Matrix		57	The second secon	nt Floodplain Soils (F19) (LRR P, S, T
	d Layers (A5)			d Matrix (F3)	10, 20			ous Bright Loamy Soils (F20)
	Bodies (A6) (LR	R P, T, U)		Dark Surface	(F6)			A 153B)
5 cm Mi	ucky Mineral (A7)	(LRR P, T, U)	☐ Deplete	d Dark Surfac	e (F7)		Red Par	rent Material (TF2)
Muck P	resence (A8) (LR	R U)	Redox I	Depressions (F8)		☐ Very Sh	allow Dark Surface (TF12)
1 cm Mi	uck (A9) (LRR P,	T)	☐ Marl (F	10) (LRR U)			Other (E	xplain in Remarks)
	d Below Dark Sur			ed Ochric (F11				
	ark Surface (A12)		A Property of the Control of the Con	inganese Mas				tors of hydrophytic vegetation and
	Prairie Redox (A16			Surface (F13				nd hydrology must be present,
	Vlucky Mineral (S	A CONTRACTOR OF THE PARTY OF TH		chric (F17) (N				ss disturbed or problematic.
	Gleyed Matrix (S4 Redox (S5)	,		ed Vertic (F18) ont Floodplain				
	Matrix (S6)						RA 149A, 153C,	153D)
	urface (S7) (LRR	P. S. T. U)		lodo Drigin Lo	unity cons	(1 20) (1112		1000)
	Layer (if observe						4	
Type:		200					1 1	
Depth (in	iches)-						Hydric Soil P	Present? Yes No X
Remarks:							Trydite Soil F	resent: res No_23
Meaton	-Levac Con	nplex. So	il has bee	n plowed	and a	rtificial	ly flooded fo	or rice farming.

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York		ate: Texas Sampling Point: DP-6
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	7 10 300 000 6
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, no	one): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.747903° Long: -94	
Soil Map Unit Name: League clay, 0 to 1 percent slopes,		NWI classification: Pf
Are climatic / hydrologic conditions on the site typical for this		no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X si		ircumstances" present? Yes No X
		plain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	snowing sampling point location	s, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area	
Hydric Soil Present? Yes X No	within a Wetland?	Yes X No
Wetland Hydrology Present? Yes X No	within a Wetland	res TY NO
Remarks:		
Sampling point is within a rice field that	t was farmed in 2015. Levee	es still remain. Vegetation is
indicative of recent rice farming with nu	imerous adventive wetland s	species. Soils have been
repeatedly plowed and artificially floods	ed.	
HYDROLOGY		
Wetland Hydrology Indicators:		econdary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all the		Surface Soil Cracks (B6)
	Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
	oosits (B15) (LRR U) n Sulfide Odor (C1)	Drainage Patterns (B10) Moss Trim Lines (B16)
	Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
	e of Reduced Iron (C4)	Crayfish Burrows (C8)
	ron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
N	ck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (E	xplain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
	th (inches):	
	th (inches):	
Saturation Present? Yes No No Dep (includes capillary fringe)	th (inches): Wetland Hy	drology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if availa	able:
Remarks:		
Area has been artificially flooded for rid	a farmina	
Area has been artificially flooded for his	e raming	

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6 Cover	Dominant Species?		Dominance Test worksheet:
		Status	
		-	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
		_	That Ac obe, TAOW, of TAO.
		_	Total Number of Dominant
		-	Species Across All Strata: (B)
		-	Percent of Dominant Species
			That Are OBL, FACW, or FAC: 100% (A)
	-		
		-	Prevalence Index worksheet:
	S.	-	Total % Cover of:Multiply by:
	Total Cov	er	OBL species x 1 =
			FACW species x 2 =
20 70 01 1	otal cover.		FAC species x 3 =
			FACU species x 4 =
			UPL species x 5 =
			Column Totals: 0 (A) (E
			(7)
			Prevalence Index = B/A =
		-	Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
		8	2 - Dominance Test is >50%
		-	3 - Prevalence Index is ≤3.01
		ar	
2.2.2.4.A 1%			Problematic Hydrophytic Vegetation (Explain)
20 70 01 1	otal cover.	-070	
			Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
	No	OBL	Definitions of Four Vegetation Strata:
	No	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
	No	FACW	more in diameter at breast height (DBH), regardless
	Yes	OBL	height.
	8		Sapling/Shrub - Woody plants, excluding vines, les
	_	_	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		_	
			Herb - All herbaceous (non-woody) plants, regardles
			of size, and woody plants less than 3.28 ft tall.
			of size, and woody plants less than 3.28 ft tall.
			of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
		er	of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
196 =	- - Total Cov		of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
196 =	4		of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
% = 20% of t	Total Cover		of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
% = 20% of I	Total Cover:		of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
% = 20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
% = 20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
% = 20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in
20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic
20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic
20% of t	Total Cover:	18%	of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic
	6 = 20% of I	= Total Cover: 20% of total cover: = Total Cover: No No No No Yes	6 = Total Cover 20% of total cover: _0%

SOIL									Sampling Point: DP-6
Profile Des	cription: (Describ	e to the dep	th need	ed to docu	ment the	indicator	or confirm	n the absenc	
Depth	Matrix				ox Featur				
(inches)	Color (moist)	%	Colo	r (moist)	%	Type	Loc2	Texture	Remarks
0-16	10YR 4/1	98	75YR 476	3	2	RM	М	clay	
16-24	10YR 3/1	95	7.5 VR 4/	6	5	RM	M	clay	
	_		_			-	-	-	-
			_					-	- L
		-			_				0
						-			
						-			
Type: C=C	Concentration, D=De	enletion PM=	Peduce	ed Matrix M	S=Mack	ed Sand G	rains	2) ocation	n: PL=Pore Lining, M=Matrix.
	Indicators: (Appl						i airs.		rs for Problematic Hydric Soils ³ ;
Histoso	and the second second	nouble to un		Polyvalue B			IPPST		Muck (A9) (LRR O)
	Epipedon (A2)			Thin Dark S					Muck (A10) (LRR S)
	Histic (A3)			oamy Muck					uced Vertic (F18) (outside MLRA 150A,
CHECK	en Sulfide (A4)			oamy Gley	The second second second				mont Floodplain Soils (F19) (LRR P, S, 7
	ed Layers (A5)			Depleted Ma					malous Bright Loamy Soils (F20)
Organii	c Bodies (A6) (LRR	P, T, U)		Redox Dark	Surface	(F6)		(MI	LRA 153B)
5 cm M	lucky Mineral (A7) (LRR P, T, U)		Depleted Da	rk Surfa	ce (F7)		☐ Red	Parent Material (TF2)
	resence (A8) (LRR		_	Redox Depr		F8)			Shallow Dark Surface (TF12)
	luck (A9) (LRR P, T			Marl (F10) (I	The State of the S			☐ Othe	r (Explain in Remarks)
	ed Below Dark Surfa	ace (A11)	100	Depleted Oc				_ 9.	and the same and the same and the
	Dark Surface (A12)	(81) DA 450		ron-Mangar					ficators of hydrophytic vegetation and
	Prairie Redox (A16)			Jmbric Surf					etland hydrology must be present,
	Mucky Mineral (S1) Gleyed Matrix (S4)	Control of the Control		Delta Ochric Reduced Ve					nless disturbed or problematic.
	Redox (S5)			Piedmont Fl					
	d Matrix (S6)					A		RA 149A, 153	C. 153D)
	urface (S7) (LRR P.	, S, T, U)	-		~~		1 1 1 2		, , , , , , , , , , , , , , , , , , , ,
	Layer (if observed							1	
Type:	and the same	4							
Depth (ir	nches):							Hydric So	il Present? Yes X No
Remarks:								20,000	
League	: Clay. Soil h	ias been	plow	eu anu	artific	ially 110	oded 10	i lice lan	ming.

Project/Site: Middleton Estate 241 ac	City/County: Chambers Count	y	Sampling Date: April 6, 2016
Applicant/Owner: Billy York		tate: Texas	Sampling Point: DP-7
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:		150 350 Tella F
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, n	one); diked - fa	simed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A L	at: 29.749131° Long: -94		Datum:
Soil Map Unit Name: League clay, 0 to 1 percent slopes,		NWI classifi	
Are climatic / hydrologic conditions on the site typical for this		f no, explain in F	
Are Vegetation X, Soil X, or Hydrology X s		Circumstances"	
			ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	snowing sampling point location	is, transects	s, important reatures, etc.
Hydrophytic Vegetation Present? Yes X N	Is the Sampled Area		
Hydric Soil Present? Yes X N	within a Wetland?	Van IS	No 🔲
Wetland Hydrology Present? Yes X	o Within a Wetland?	Tes	31 NO L
Remarks:			
Sampling point is within a rice field tha	t was farmed in 2015. Leve	es still rem	nain. Vegetation is
indicative of recent rice farming with nu			
repeatedly plowed and artificially flood		1	District Control of Control
A TOTAL CONTRACTOR AND A TOTAL AND	717		
HYDROLOGY			
Wetland Hydrology Indicators:			ators (minimum of two required)
Primary Indicators (minimum of one is required; check all t			Cracks (B6)
	Fauna (B13)		getated Concave Surface (B8)
	posits (B15) (LRR U)		atterns (B10)
	n Sulfide Odor (C1)	Moss Trim L	
	Rhizospheres along Living Roots (C3)		Water Table (C2)
	e of Reduced Iron (C4)	Crayfish Bu	
N 1 1 N	ron Reduction in Tilled Soils (C6) ck Surface (C7)		/isible on Aerial Imagery (C9) : Position (D2)
	explain in Remarks)	Shallow Agu	
Inundation Visible on Aerial Imagery (B7)	Apiatr in remarks)	FAC-Neutra	
Water-Stained Leaves (B9)			moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No X Dep	oth (inches):		
Water Table Present? Yes No X Dep	oth (inches):		
	oth (inches): Wetland Hy	drology Prese	nt? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, a			The party of the p
Describe Necorded Data (Stream gauge, monitoring well, a	acinal prioros, previous inspections), il avail	able.	
Remarks:			
Area has been artificially flooded for ri-	ce farming		

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ree Stratum (Plot size:)		Dominant		Dominance Test worksheet:
		Species?		
	- Contraction		8 1	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
				(1)
				Total Number of Dominant
•			_	Species Across All Strata: (B)
			_	Percent of Dominant Species
				That Are OBL, FACW, or FAC: 100% (A)
		-	=	Becalification of Fig.
	-		-	Prevalence Index worksheet:
		34,	-	Total % Cover of: Multiply by:
	0%	= Total Co	/er	OBL species x 1 =
50% of total cover:0%				FACW species x 2 =
apling/Shrub Stratum (Plot size:)		10001-011		FAC species x 3 =
aging/shab stratam (150 Size)				FACU species x 4 =
				UPL species x 5 =
-				Column Totals: 0 (A) (F
				10
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
		-		X 1 - Rapid Test for Hydrophytic Vegetation
		-	8	2 - Dominance Test is >50%
		×	2	3 - Prevalence Index is ≤3.01
	0%		/er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover; 0% erb Stratum (Plot size:) Eleocharis parvule	10	No	OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Eleocharis cellulosa	5	No	OBL	Definitions of Four Vegetation Strata:
	2	No	FÁCW	Deminitions of Four Vegetation Strata.
Juncus brachycarpus		-	-	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)
Cyperus virens	50		FACW	more in diameter at breast height (DBH), regardless height.
Leersia oryzoides		Yes	OBL	neight.
<u> </u>				Sapling/Shrub - Woody plants, excluding vines, les
	-			than 3 in. DBH and greater than 3.28 ft (1 m) tall
			2	Herb - All herbaceous (non-woody) plants, regardles
		-	7	of size, and woody plants less than 3.28 ft tall.
0		~	8	Woody vine - All woody vines greater than 3.28 ft in
1/2		-	3	height.
2.		-	4	
	87%	= Total Co	ier.	+
50% of total cover:44%				
/oody Vine Stratum (Plot size:)	20 % 01	total cover		
<u> </u>				
		+	*	
		0	9	
		ė.	2	Hydrophytic
	0%	= Total Cov	/er	Vegetation
50% of total cover: 0%		f total cover		Present? Yes No No
emarks: (If observed, list morphological adaptations belo		10101 00101		N
citiatità. (il observed, list illo priological adaptations bei	244 2-			

rofile Descript	ion: (Describe	to the dept	th need	led to docu	ment the	indicator	or confirm	n the abse	nce of in	dicators.)
Depth	Matrix	97	0-1		ox Featur		13-8	Territoria		Wallander
	Color (moist)	%		or (moist)	%	Type	Loc	Texture		Remarks
	YR 4/1	98	75YR 4		2	RM	М	clay		
6-24 10	YR 3/1	95	7.5YR 4	18	5	RM	М	clay	_	
						-				
						4	1			
						-				
			-		_		_	-		
	Court Ser By		E.O.		2		_	-		CONTRACT CONTRACT
	entration, D=De						rains.			Pore Lining, M=Matrix.
	cators: (Appli	cable to all	-				DD 0 T			roblematic Hydric Soils ³ ;
Histosol (A1) Histic Epiped	The state of the s			Polyvalue B Thin Dark S						A9) (LRR O) A10) (LRR S)
Black Histic	A CONTRACTOR OF THE PARTY OF TH			Loamy Muc						rtic (F18) (outside MLRA 150A,
Hydrogen St	The second second			Loamy Gley	THE RESERVE AND ADDRESS.					oodplain Soils (F19) (LRR P, S,
Stratified Lay				Depleted Ma						Bright Loamy Soils (F20)
Organic Bod	lies (A6) (LRR I	P, T, U)		Redox Dark	Surface	(F6)			MLRA 15	
	Mineral (A7) (L		_	Depleted Da						Material (TF2)
	nce (A8) (LRR I			Redox Depr	The second second	F8)				v Dark Surface (TF12)
The Control of the Co	A9) (LRR P, T)			Marl (F10) (V001 TO 6	EAV	LI Ott	her (Expla	in in Remarks)
	elow Dark Surfa Surface (A12)	ce (ATT)		Depleted Or Iron-Mangar				T) 3	ndicators	of hydrophytic vegetation and
The second model to the limit of the	e Redox (A16) (MLRA 150A	V 10 7 7 70 1	Umbric Surf						ydrology must be present.
						ILRA 151)				sturbed or problematic.
Sandy Muck	y Mineral (S1) (LRR O, S)		Dena Ochine						
	ry Mineral (S1) (ed Matrix (S4)	(LRR O, S)		Reduced Ve			50A, 150B		dillous di	
	ed Matrix (S4)	(LRR O, S)	日	Reduced Ve Piedmont Fl	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A)		
Sandy Gleye Sandy Redo Stripped Mai	ed Matrix (S4) ox (S5) trix (S6)		日	Reduced Ve	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A)		
Sandy Gleye Sandy Redo Stripped Mai Dark Surface	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P,	S, T, U)	日	Reduced Ve Piedmont Fl	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A)		
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye	ed Matrix (S4) ox (S5) trix (S6)	S, T, U)	日	Reduced Ve Piedmont Fl	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A)		
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye	ed Matrix (S4) ex (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)	日	Reduced Ve Piedmont Fl	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A) RA 149A, 1	53C, 153I	o)
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ex (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)	日	Reduced Ve Piedmont Fl	ertic (F18 loodplain	(MLRA 1 Soils (F19	(MLRA 1	19A) RA 149A, 1		5)
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface strictive Laye Type: Depth (inches	ed Matrix (S4) ex (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	o) ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	o) ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	o) ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No
Sandy Gleye Sandy Redo Stripped Mal Dark Surface estrictive Laye Type: Depth (inches emarks:	ed Matrix (S4) ox (S5) trix (S6) e (S7) (LRR P, er (If observed)	S, T, U)		Reduced Ve Piedmont Fi Anomalous	ertic (F18 loodplain Bright Lo	(MLRA 1 Soils (F19 amy Soils) (MLRA 14 (F20) (MLF	49A) RA 149A, 1: Hydric \$	53C, 153I Soil Pres	ent? Yes X No

Project/Site: Middleton Estate 241 ac	City/County: Chambers County	Sampling Date: April 6, 2016
Applicant/Owner: Billy York	State:	
Investigator(s): Lee Sherrod and Scott Flesher	Section, Township, Range:	3 100 000 000 000
Landform (hillslope, terrace, etc.): Farm Field	Local relief (concave, convex, none):	diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A La	at: 29.752408° Long: -94.3850	
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percentage	ent slopes, rarely flooded	WI classification: none
Are climatic / hydrologic conditions on the site typical for this		explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X si		nstances" present? Yes No X
		any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	showing sampling point locations, to	ransects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	(a the Complet Aven	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes No X
Wetland Hydrology Present? Yes X No	within a Wetland	tes No A
Remarks:		
Sampling point is within a rice field that	was farmed in 2015. Levees s	still remain. Vegetation is
indicative of recent rice farming with nu		
repeatedly plowed and artificially floods		
HYDROLOGY		
Wetland Hydrology Indicators:		dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all the		urface Soil Cracks (B6)
The first of the first of the property of the first of th		parsely Vegetated Concave Surface (B8)
		rainage Patterns (B10) oss Trim Lines (B16)
		ry-Season Water Table (C2)
		rayfish Burrows (C8)
		aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muc	ck Surface (C7)	eomorphic Position (D2)
Iron Deposits (B5) Other (E	xplain in Remarks)	nallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	The state of the s	AC-Neutral Test (D5)
Water-Stained Leaves (B9)	S _I	phagnum moss (D8) (LRR T, U)
Field Observations:	n a n 1 7 in rute	
	th (inches); 0-2 in ruts	
. F. W. B. W	th (inches):	
Saturation Present? Yes No No Dep (includes capillary fringe)	th (inches): Wetland Hydroic	ogy Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if available:	
Remarks:		
Area has been artificially flooded for ric	e farming	
Thea has seen armolally hooded for he	e ranning	

US Army Corps of Engineers

EGETATION (Four Strata) – Use scientific	Absolute	Dominon	t Indicator	
Tree Stratum (Plot size:)			? Status	Dominance Test worksheet: Number of Dominant Species
	-	2 1	(a)	That Are OBL, FACW, or FAC:2 (A)
2			(5	
			-	Total Number of Dominant
3				Species Across All Strata: (B)
4,			-	Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC:(A/
6.,		-		Prevalence Index worksheet:
7			-	Market Carlot Control of the Control
8		è,	-	Total % Cover of: Multiply by:
	096	= Total Co	over	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1				FACU species x 4 =
				UPL species x 5 =
2				Column Totals: 0 (A) (E
3	-2.4			
ł				Prevalence Index = B/A =
j,				Hydrophytic Vegetation Indicators:
5		-		■ 1 - Rapid Test for Hydrophytic Vegetation
7		-	.8.	2 - Dominance Test is >50%
3		4	18	☐ 3 - Prevalence Index is ≤3.01
	0%		over	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	0% 20% of	total cove	er: _0%	
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1_ Eleocharis cellulosa	5	Nó	NL	be present, unless disturbed or problematic.
·	30	No Yes	OBL	
2. Oryza sativa		_	<	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
2. Oryza sativa 3. Junicus brechycarpus	30 5	Yes	ØBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
2; Onyza sativa 3, Junicus brachycarpus 4, Eleochans parvula	30 5	Yes No	ÖBL FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
2. Oryza sativa 3. Junicus brachyćarpus 4. Eleocharis parvula 5. Cyperus virens	30 5 50	Yes No Yes	OBL FACW OBL	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
2. Oryza sativa 3. Junious brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale	30 5 50 2 5	Yes No Yes No	OBL FACW OBL FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
2. Oryza sativa 3. Junious brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale	5 50 2 5	Yes No Yes No	OBL FACW OBL FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Oryza sativa 3. Junious brachycarpus 4. Eleocharis parvula 5. Cyperus virens 6. Taraxacum officinale	30 5 50 2 5	Yes No Yes No No	OBL FACW OBL FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles.
2. Onyza sativa 3. Junous brachycerpus 4. Eleochans parvula 5. Cyperus virens 6. Taraxacum officinale 7.	30 5 50 2 5	Yes No Yes No No	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Onyza sativa 3. Juncius brechyćerpus 4. Eleocharis parvula 5. Cyperus virens 6. Taraxacum officinale 7	30 5 50 2 5	Yes No Yes No No	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in the size of t
2. Onyza sativa 3. Juncius brechyćerpus 4. Eleocharis parvula 5. Cyperus virens 6. Taraxacum officinale 7	30 5 50 2 5	Yes No Yes No No	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
2. Onyza sativa 3. Junous brechyćerpus 4. Eleochans parvula 5. Cyperus virens 5. Taraxacum officinale 7	30 5 50 2 5	Yes No Yes No No	OBL FACW OBL FACW FACU -	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Onza sativa 3. Junicus brachycarpus 4. Eleocharis parvula 5. Coperus virens 6. Taraxacum officinale 7. 8. 9. 10.	30 5 50 2 5	Yes No Yes No No Total Co	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Onza sativa 3. Junicus brachycarpus 4. Eleocharis parvulla 5. Coperus virens 7. Taraxacum officinale 9. Junicus Strachycarpus 10	30 5 50 2 5	Yes No Yes No No Total Co	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryza sativa 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7	30 5 50 2 5 5 97% 20% of	Yes No Yes No No Total Cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryza sativa 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cottotal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryza sativa 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cottotal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryze sative 3. Junous brachycerpus 4. Eleocharis parvule 5. Cyperus virens 5. Taraxacum officinale 7. 8. 9. 10. 11. 12. 50% of total cover:	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryze sative 3. Junous brachycerpus 4. Eleocharis parvule 5. Cyperus virens 5. Taraxacum officinale 7. 8. 9. 10. 11. 12. 50% of total cover:	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
1. Eleochanis cellulose 2. Oryza sative 3. Junicus brachycarpus 4. Eleochanis parvula 5. Cyperus virens 6. Taraxacum officinale 7	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
2. Oryze sative 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7. 3. 9. 10. 11. 12. 50% of total cover:	30 5 50 2 5 5 9746 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. Oryze sative 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7. 3. 9. 10. 11. 12. 50% of total cover:	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. Oryze sative 3. Junous brachycerpus 4. Eleocharis parvule 5. Oxperus virens 5. Taraxacum officinale 7	30 5 50 2 5 5 9796 20% of	Yes No Yes No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. Oryza sativa 3. Junous brachycarpus 4. Eleocharis parvula 5. Cyperus virens 5. Taraxacum officinale 7	97% 97% 97% 90% of 20%	Yes No Yes No No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. Oryze sative 3. Junius brechycerpus 4. Eleocharis parvula 5. Cyperus virens 6. Taraxacum officinale 7. 88. 99. 110. 111. 112. 111. 112. 111. 112. 111. 112. 111. 112. 111. 112. 111. 112. 111. 112. 111. 112. 111. 11	97% 97% 97% 90% of 20%	Yes No Yes No No No Total Cototal cove	OBL FACW OBL FACW FACU	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
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	cription: (Descrip	e to the dep				or confire	n the absence of	Indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	dox Featur %	es Type ¹	Loc2	Texture	Remarks
0-3	10YR 5/2	90	7.5YR 5/8	10	RM	M	siltý loamy clay	Nemarks
3-6						_		
	10YR 4/1	80	7.5 YR 5/8	20	RM	M	day	
5-24	10YR 4/1	90	7.5YP 5/8	10	RM	M	day	
		Ξ			÷			
Type: C=C	Concentration, D=D	epletion, RM=	Reduced Matrix,	MS=Mask	ed Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix
Black Hydrog Stratifie Organic 5 cm M Muck P 1 cm M 1 cm M Coast F Sandy Sandy Sandy	il (A1) pipedon (A2) listic (A3) listic (A3) c Bodies (A6) (LRR ucky Mineral (A7) (resence (A8) (LRR uck (A9) (LRR P, IT de Below Dark Surflark Surface (A12) Prairie Redox (A16) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	(LRR P, T, U) (U) (T) (ace (A11) (MLRA 150A (LRR O, S)	Iron-Mang: Umbric Su Delta Ochr Reduced \ Piedmont	Surface (S cky Minera vyed Matrix Matrix (F3) k Surface Dark Surface Dark Surface (LRR U) Ochric (F11 anese Mas rface (F13) (vertic (F18 kl)	9) (LRR S, I) (F1) (LRF (F2) (F6) DE (F7) F8)) (MLRA 1 Sees (F12) () (LRR P, T ILRA 151)) (MLRA 15 Soils (F19)	T, U) 50) 51) LRR O, P , U) 60A, 150B (MLRA 1	2 cm Muc Reduced ' Piedmont Anomalou (MLRA Red Parei Very Shal Other (Ex) s'indicato wetland unless	nt Material (TF2) low Dark Surface (TF12) plain in Remarks) rs of hydrophylic vegetation and d hydrology must be present, disturbed or problematic.
	urface (S7) (LRR P	S. T. U)	Anomalous	bilgiit Lo	arriy Solis ((ZO) (INIE.	IA 149A, 1996, 19	,50)
	Layer (if observe						1	
Type:								
Depth (ir	nches):						Hydric Soil Pre	esent? Yes No X
Remarks:								

Project/Site: Middleton Estate 241 ac JD Reference Site	City/County: Chambers Coun	ty	Sampling Date: May 13, 2016
Applicant/Owner: Billy York		State: Texas	Sampling Point: 410
Investigator(s): Lee Sherrod	Section, Township, Range:		41.12.2
Landform (hillslope, terrace, etc.): pasture	Local relief (concave, convex,	none): flat	Slope (%): ~1
		4.377372°	Datum:
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1 percent	slopes	NWI class	ification: none
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed? Are "Normal	Circumstances	" present? Yes X No
[1] [2] [2] [2] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4			wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point locatio	ns, transec	is, important reatures, etc
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area		
Hydric Soil Present? Yes No	within a Wetland?	Yes	No X
Wetland Hydrology Present? Yes No _	X		
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all that			oil Cracks (B6)
Surface Water (A1) Aquatic Fau			/egetated Concave Surface (B8)
	ts (B15) (LRR U) ulfide Odor (C1)		Patterns (B10) Lines (B16)
	izospheres along Living Roots (C3)		in Water Table (C2)
H	Reduced Iron (C4)		urrows (C8)
Drift Deposits (B3)	Reduction in Tilled Soils (C6)	Saturation	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck S	surface (C7)	Geomorph	ic Position (D2)
	in in Remarks)		quitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)			ral Test (D5) n moss (D8) (LRR T, U)
Field Observations:	1	Spriagrium	Tilloss (Do) (LKK 1, U)
Surface Water Present? Yes No X Depth (inches):		
	inches):		
Saturation Present? Yes No X Depth (inches): Wetland H	ydrology Pres	ent? Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	labeles assisted invasions. If a col	lable	The Management of the Control of the
Describe Recorded Data (siteam gauge, monitoring well, aena	ii photos, previous (rispections), ii avai	liable.	
Remarks:			

US Army Corps of Engineers

Tree Stratum (Plot size:)			Indicator	Dominance Test worksheet:
	% Cover			Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
. ·				Total Number of Dominant
		-		Species Across All Strata:3 (B)
			2	
i.,				Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/E
5.				That Ac obs, TAOW, of TAO (At
7			-	Prevalence Index worksheet:
			_	Total % Cover of: Multiply by:
S.,				OBL species x 1 =
	0%			FACW species x 2 =
50% of total cover:0%	20% of	total cover	. 090	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =
		-		UPL species x 5 =
2				
5				Column Totals:0 (A)0 (B
<u></u>		i-c		Prevalence Index = B/A =
j				Hydrophytic Vegetation Indicators:
)			-	1 - Rapid Test for Hydrophytic Vegetation
7.			-	
		-		
				2 - Dominance Test is >50%
50% of total cover:0%	0%		 /er	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	0%		 /er	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
50% of total cover:	20% of	total cover		□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover:0% Herb Stratum (Plot size:) 1. Cynodon dactylon 2. Stenotaphrum secondatum	0% of 20% of 50	Yes Yes	FACU FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
50% of total cover:	20% of 20 20	Yes Yes Yes	FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is
50% of total cover:	20% of 20 20 2	Yes Yes Yes No	FACU FACU OBL	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) in more in diameter at breast height (DBH), regardless of
50% of total cover:	20% of 20 50 20 2 2	Yes Yes Yes No No	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a more in diameter at breast height (DBH), regardless of height.
50% of total cover:0% Herb Stratum (Plot size:) 1. Cynodon dactylon 2. Stenotaphrum secondatum 3. Sporobolus indicus 4. Eleocharis parvula 5. Lespedeza angustiolia 6	20% of 20 50 20 2 2 2	Yes Yes Yes No No	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) is more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover:	20% of 50 20 2 2 2	Yes Yes Yes No No -	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a more in diameter at breast height (DBH), regardless of height.
50% of total cover:	20% of 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles
50% of total cover:	20% of 50 20 20 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) a more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover:	20% of 50 20 20 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover:	0% 20% of 20 50 20 20 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover:	0% 20% of 20 50 20 20 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% 20% of 20 50 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% 20% of 20 50 20 2 2 2 2 94%	Yes Yes Yes No No	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% 20% of 20 50 20 2 2 2 2 94%	Yes Yes Yes No No	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% of 20% of 50 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No Total Covertical cover	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% of 20% of 50 20 2 2 2 944% 4 20% of	total cover Yes Yes Yes No No Total Cover Total cover	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% of 20% of 50 20 2 2 2 94% 4% 20% of	total cover Yes Yes Yes No No Total Cover total cover	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% 20% of 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	total cover Yes Yes Yes No No Total Cover total cover	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	0% of 20% of 50 20 2 2 2 2 94% 20% of	total cover Yes Yes Yes No No Total Cover total cover	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	0% of 20% of 50 20 2 2 2 94% 4% 20% of	total cover Yes Yes Yes No No Total Cover total cover	FACU FAC FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover:	0% of 20% of 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	total cover Yes Yes Yes No No Total Cover total cover	FACU FACU OBL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

	cription: (Describe	to the dept				or confirm	the absence	of Indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	Type Type	Loc2	Texture	Remarks
0-12	10YR 4/1	95	10YR 4/6	5	C	PL	clay	Nontany
12-24	10YR 3/2	70	10YR 5/6	30	c.	PL	day	
- A- A- C	10114.3/2	-10	18111.20			PL	- Stay	
	-				-	-		
	_				-			
					-			
	-	0.0		9	-	-		
Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, N	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	erwise no	ted.)		Indicators 1	for Problematic Hydric Soils ³ ;
Histosol			☐ Polyvalue B					uck (A9) (LRR O)
	pipedon (A2)		☐ Thin Dark S					uck (A10) (LRR S)
	istic (A3) en Sulfide (A4)		☐ Loamy Muc ☐ Loamy Gley	The second second		. 01		ed Vertic (F18) (outside MLRA 150A,E ont Floodplain Soils (F19) (LRR P, S, T
	d Layers (A5)		☐ Depleted Ma		0.47			lous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR I	P, T, U)	Redox Dark	Surface (F6)		(MLR	A 153B)
	ucky Mineral (A7) (L		Depleted Da					rent Material (TF2)
	resence (A8) (LRR I		Redox Depr		-8)			nallow Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surfa		☐ Marl (F10) (☐ Depleted O		MIRAI	51)	U Other (i	Explain in Remarks)
	ark Surface (A12)	56 (7111)	☐ Iron-Mangai				T) SIndica	ators of hydrophytic vegetation and
	rairie Redox (A16) (MLRA 150A						and hydrology must be present,
			T	/EAT / MM	DA AEAL		unle	ss disturbed or problematic.
	Mucky Mineral (S1)	(LRR O, S)	■ Delta Ochric					and and tomoral on Revenue and an extension of
Sandy M	Gleyed Matrix (S4)	(LRR O, S)	☐ Reduced Ve	ertic (F18)	(MLRA 15			
Sandy M Sandy C Sandy F	Gleyed Matrix (S4) Redox (S5)	(LRR O, S)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14		
Sandy M Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5)	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) irface (S7) (LRR P,	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	
Sandy M Sandy C Sandy F Sandy F Stripped Dark Su Restrictive Type:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	9A) A 149A, 153C,	153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
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Project/Site: Middleton Estate 241 ac JD Reference Site	City/County: Chambers County	Sampling Date: May 13, 2016
Applicant/Owner: Billy York	State: Texas	Sampling Point: 410
Investigator(s): Lee Sherrod	Section, Township, Range:	41.5.5.5.
Landform (hillslope, terrace, etc.): pasture	Local relief (concave, convex, none): flat	Slope (%): ~1
	29.759738° Long: -94.377372°	Datum:
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1 percent	slopes NWI clas	ssification: none
	ficantly disturbed? Are "Normal Circumstance rally problematic? (If needed, explain any are	es" present? Yes X No No swers in Remarks.)
Hydrophytic Vegetation Present? Yes No No Hydric Soil Present? Yes No No Remarks:	is the Sampled Area	No X
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary In	ndicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply) Surface	Soil Cracks (B6)
Saturation (A3) Hydrogen S Water Marks (B1) Oxidized Rh Sediment Deposits (B2) Presence of Drift Deposits (B3) Recent Iron Algal Mat or Crust (B4) Thin Muck S	its (B15) (LRR U) Drainage ulfide Odor (C1) Moss Tr Dry-Sea F Reduced Iron (C4) Reduction in Tilled Soils (C6) Surface (C7) ain in Remarks) Drainage Moss Tr Dry-Sea Crayfish Saturatio Geomor Shallow FAC-Ne	/ Vegetated Concave Surface (B8) e Patterns (B10) im Lines (B16) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) Aquitard (D3) utral Test (D5) um moss (D8) (LRR T, U)
Field Observations:		
Water Table Present? Yes No X Depth ((inches): (inches): (inches): Wetland Hydrology Pro al photos, previous inspections), if available:	esent? Yes No X
Remarks:		

US Army Corps of Engineers

Free Stratum (Plot size:)		Dominant		Dominance Test worksheet:
		Species?		Number of Dominant Species
				That Are OBL, FACW, or FAC:1 (A)
				Total Number of Dominant
·				Species Across All Strata:3 (B)
				Percent of Dominant Species
				That Are OBL, FACW, or FAC:33% (A/I
				Province Index weatherest.
				Prevalence Index worksheet:
1		-		Total % Cover of: Multiply by:
	0%	= Total Cov	/er	OBL species x 1 =
50% of total cover: 0%	20% of	total cover	: 0%	FACW species x 2 =
apling/Shrub Stratum (Plot size:)				FAC species x 3 =
				FACU species x 4 =
				UPL species x 5 =
				Column Totals:0 (A)0 (E
			-	Provolence Index - B/A -
			-	Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
			-	1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
v				
		- Total Co		☐ 3 - Prevalence Index is ≤3.01
	0%			☐ 3 - Prevalence Index is ≤3.0¹ ☐ Problematic Hydrophytic Vegetation [†] (Explain)
50% of total cover:	0%			
50% of total cover: 0%	20% of	total cover	:_0%	Problematic Hydrophytic Vegetation [†] (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover: 0%	0% of 20% of			Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	20% of	total cover	:_0%	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover: 0% Stratum (Plot size:) Cynodon dadylon Stenotaphrum secondatum	0% of 20% of	total cover	FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover:	20% of	Yes Yes	FACU FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of the control o
50% of total cover:	20 50 20	Yes Yes Yes No	FACU FAC FACU	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover:	20% of 20 20 2 2	Yes Yes Yes No No	FACU FAC FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height.
50% of total cover:	20% of 20 50 20 2 2 2	Yes Yes Yes No No	FACU FAC FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of height.
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50% of total cover:	20% of 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU OBL FAC	Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
50% of total cover:	20% of 50 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20 60 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	20 60 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FACU FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of 20% of 50 20 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Yes Yes Yes No No	FACU FAC FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
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50% of total cover:	20 60 20 20 2 2 2 2 944% 20% of	total cover Yes Yes Yes No No Total Cover total cover	FACU FAC FACU OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
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	cription: (Describe	to the dept				or confirm	the absence	of Indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	Type Type	Loc2	Texture	Remarks
0-12	10YR 4/1	95	10YR 4/6	5	C	PL	clay	Nontany
12-24	10YR 3/2	70	10YR 5/6	30	c.	PL	day	
- A- A- C	10114.3/2	-10	18111.20			PL	- Stay	
	-				-	-	-	
	_				-			
					-			
	-	0.0		9	-	-		
Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, N	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	erwise no	ted.)		Indicators 1	for Problematic Hydric Soils ³ ;
Histosol			☐ Polyvalue B					uck (A9) (LRR O)
	pipedon (A2)		☐ Thin Dark S					uck (A10) (LRR S)
	istic (A3) en Sulfide (A4)		☐ Loamy Muc ☐ Loamy Gley	The second second		. 01		ed Vertic (F18) (outside MLRA 150A,E ont Floodplain Soils (F19) (LRR P, S, T
	d Layers (A5)		☐ Depleted Ma		0.47			lous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR I	P, T, U)	Redox Dark	Surface (F6)		(MLR	A 153B)
	ucky Mineral (A7) (L		Depleted Da					rent Material (TF2)
	resence (A8) (LRR I		Redox Depr		-8)			nallow Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surfa		☐ Marl (F10) (☐ Depleted O		MIRAI	51)	U Other (i	Explain in Remarks)
	ark Surface (A12)	56 (7111)	☐ Iron-Mangai				T) SIndica	ators of hydrophytic vegetation and
	rairie Redox (A16) (MLRA 150A						and hydrology must be present,
			T	/EAT / MM	DA AEAL		unle	ss disturbed or problematic.
	Mucky Mineral (S1)	(LRR O, S)	■ Delta Ochric					and and tomoral and Repair and a second
Sandy M	Gleyed Matrix (S4)	(LRR O, S)	☐ Reduced Ve	ertic (F18)	(MLRA 15			
Sandy M Sandy C Sandy F	Gleyed Matrix (S4) Redox (S5)	(LRR O, S)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14		
Sandy M Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5)	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) irface (S7) (LRR P,	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	(A9)	
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	s, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	
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Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy G Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)
Sandy M Sandy C Sandy C Sandy F Stripped Dark Su Restrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR P, Layer (If observed)	S, T, U)	Reduced Ve	ertic (F18) Ioodplain ((MLRA 15 Soils (F19)	(MLRA 14	99A) A 149A, 153C,	153D)

Project/Site: Middleton Estate 241 ac JD Reference	Site City/County: Cha	mbers County	Sampling Date: May 13, 2016
Applicant/Owner: Billy York		State: Texas	Sampling Point: 411
Investigator(s): Lee Sherrod	Section, Township		777 307 10 0 6
Landform (hillslope, terrace, etc.): pasture		ave, convex, none): flat	Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A		Long: -94.377311°	Datum:
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1			ication: none
Are climatic / hydrologic conditions on the site typical for		No [(If no, explain in	
Are Vegetation , Soil , or Hydrology		Are "Normal Circumstances"	
Are Vegetation . Soil . or Hydrology		(If needed, explain any answ	
SUMMARY OF FINDINGS – Attach site m	ap snowing sampling pol	int locations, transect	s, important features, etc
Hydrophytic Vegetation Present? Yes X	No Is the Sam	npled Area	
Hydric Soil Present? Yes	No Within a W	/etland? Yes	No X
Wetland Hydrology Present? Yes	No X		
Remarks:			
HYDROLOGY Wetland Hydrology Indicators:	1000	Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)		il Cracks (B6)
Surface Water (A1)	uatic Fauna (B13)	Sparsely V	egetated Concave Surface (B8)
그 그 이 것으로 하는데 아들은 아들이 아니다.	url Deposits (B15) (LRR U)		atterns (B10)
	drogen Sulfide Odor (C1)		Lines (B16)
	idized Rhizospheres along Living F esence of Reduced Iron (C4)	Roots (C3) Dry-Seasor Crayfish Bu	Water Table (C2)
The second secon	cent Iron Reduction in Tilled Soils	Control of the contro	Visible on Aerial Imagery (C9)
1 - 1 1 1 1 1 1 1 1	in Muck Surface (C7)		c Position (D2)
Iron Deposits (B5)	ner (Explain in Remarks)	Shallow Aq	uitard (D3)
Inundation Visible on Aerial Imagery (B7)			al Test (D5)
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No X	Depth (inches);		
Water Table Present? Yes No X	Depth (inches):		
Saturation Present? Yes No X	Depth (inches):	Wetland Hydrology Prese	ent? Yes No X
(includes capillary fringe)	all and a ball a ball a section of	The second second	
Describe Recorded Data (stream gauge, monitoring v	veii, aeriai priotos, previous inspec	mons), if available:	
Remarks:			
The state of the s			

US Army Corps of Engineers

		ants.		Sampling Point: 411
Tree Observes / Otal stars		Dominant		Dominance Test worksheet:
ree Stratum (Plot size:)	- Contraction	Species	Status	Number of Dominant Species
			-	That Are OBL, FACW, or FAC:4 (A)
	_			Total Number of Dominant
		-	2	Species Across All Strata: 4 (B)
		-	P	
			-	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/I
		-		That Ale OBL, FACW, of FAC. (AV
		-		Prevalence Index worksheet:
		•	-	Total % Cover of: Multiply by:
N			_	OBL species x 1 =
	0%	= Total Co	ver	
50% of total cover: 0%	20% of	total cove	0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
	5	Yes	FAC	FACU species x 4 =
	_			UPL species x 5 =
			-	Column Totals: 0 (A) (E
n <u>-</u>			-	
-				Prevalence Index = B/A =
),				Hydrophytic Vegetation Indicators:
Š		-	8.7	☐ 1 - Rapid Test for Hydrophytic Vegetation
1			8	2 - Dominance Test is >50%
3.				
		-	-	
		- Total Co		☐ 3 - Prevalence Index is ≤3.01
	5%	= Total Co	ver	
50% of total cover: 3%	5%	= Total Co	ver	☐ 3 - Prevalence Index is ≤3.01
50% of total cover:3%	5%	= Total Co	ver	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
50% of total cover;	5%	= Total Co	ver	□ 3 - Prevalence Index is ≤3.0 ¹ □ Problematic Hydrophytic Vegetation (Explain)
50% of total cover; 3% Herb Stratum (Plot size;) [Schizachyrium scoparium divergens	20% of	= Total Co total cove	ver	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
50% of total cover; 3% Herb Stratum (Plot size;) [Schizachyrium scoparium divergens 2. Stenotaphrum secondatum	20% of	= Total Co total cove	ver	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover;	20% of 40	Total Cove	NL FAC	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover;	20% of 40 10 30	Total Co total cover No Yes No Yes	NL FAC FACU OBL	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless in the content of the co
50% of total cover;	20% of 40 10 30 10	No Yes No	NL FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover;	20% of 40 10 30 10	No Yes No	NL FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover;	20% of 40 10 30 10	No Yes No	NL FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover;	20% of 40 10 30 10	No Yes No Yes No	NL FAC FACU OBL FACW -	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	20% of 40 10 30 10	Total Cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	20% of 20% of 40 10 30 10	Total Cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	20% of 20% of 40 10 30 10 10 10 10 10 10 10 10 10 10 10 10 10	= Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 40 10 30 10 10 10 10 10 10 10 10 10 10 10 10 10	= Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	596 20% of 40 10 30 10	= Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 40 10 30 10 110%	Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 40 10 30 10 110%	Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 40 10 30 10 110%	Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 10 30 10 110% 20% of 20	Total Cove No Yes No Yes No Total Cove Total Cove Total Cove Total Cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 40 10 30 10 10 10 10 10 10 10 10 10 10 10 10 10	= Total Cove No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 20% of 10 30 10 10 30 10 10 5 20% of 5	= Total Covel No Yes No Yes No	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 10 30 10 10 110% 20% of 5	= Total Cove No Yes No Yes No Total Cove total cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 10 30 10 10 110% 20% of 5	= Total Cove No Yes No Yes No Total Cove total cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 10 30 10 10 110% 20% of 5	= Total Cove No Yes No Yes No Total Cove total cove	NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	20% of 10 30 10 10 5 5 5	= Total Cove No Yes No Yes No Total Cove total cove	Ver 196 NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover;	20% of 40 10 30 10 10 5 5 5 5 6 5 5 6 5 6 6	= Total Cove No Yes No Yes No Total Cove total cove	ver 196 NL FAC FACU OBL FACW	□ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless theight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

Depth (inches)		to the dop.	h needed to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)
unchest	Matrix Color (moist)	07	Red Color (moist)	ox Feature		La-2	Touture	Domaria
	Color (moist)	%		%	Type	Loc2	Texture	Remarks
0-8	10YR 4/2	90	10YR 5/6	10	C	PL	loamy.clay	
8-24	10YR 5/2	60	10YR 5/6	40	C	PL	clay	
					-			
					ě			
	-	_						
				-	-	_		
	7-	-		-	-	_		
					-	-		
Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, N	IS=Maske	d Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix
Hydric Soil	Indicators; (Appli	cable to all	LRRs, unless othe	erwise no	ted.)		Indicators for	Problematic Hydric Soils ³ ;
Histosol	(A1)		☐ Polyvalue B	elow Surf	ace (S8) (L	.RR S, T, L	J) 🔲 1 cm Mucl	(A9) (LRR O)
The second second second	pipedon (A2)		☐ Thin Dark S					(A10) (LRR S)
-	istic (A3)		Loamy Muc	The second second second		(0)	The second secon	/ertic (F18) (outside MLRA 150A,B
	en Sulfide (A4)		Loamy Gley		(F2)			Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5) : Bodies (A6) (LRR I	D T 10	☐ Depleted M ☐ Redox Dark		EGV		(MLRA	s Bright Loamy Soils (F20)
	ucky Mineral (A7) (L		Depleted Da				Annual Control of the Control	nt Material (TF2)
	resence (A8) (LRR		Redox Depr					ow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (/			plain in Remarks)
	d Below Dark Surfa		Depleted O		(MLRA 1	51)		,
Thick Da	ark Surface (A12)		☐ Iron-Manga	nese Mas	ses (F12) (LRR O, P,	T) ³ Indicator	rs of hydrophytic vegetation and
	rairie Redox (A16)					, U)		d hydrology must be present,
	Mucky Mineral (S1)	(LRR O, S)	Delta Ochri					disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
	Redox (S5)		Piedmont F				19A) RA 149A, 153C, 15	201
Stripped	rface (S7) (LRR P.	STU	LI Anomalous	Dright Los	inly Solis (FZU) (WILK	M 143M, 133C, 13	30)
	Layer (if observed	7 1 4					1	
. 62.11191.71								
Restrictive	decret de la la							
Restrictive Type:	ches)		===				Hydric Soil Pre	sent? Ves No X
Restrictive Type: Depth (in- Remarks:		1 and a					Hydric Soil Pre	sent? Yes No X
Restrictive Type: Depth (in Remarks:	ches):	lex.					Hydric Soll Pre	esent? Yes No X
Restrictive Type: Depth (in Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in- Remarks:		elex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in- Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in- Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in Remarks:		olex.					Hydric Soll Pre	esent? Yes No X
Restrictive Type: Depth (in- Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in- Remarks:		elex.					Hydric Soll Pre	ssent? Yes No X
Restrictive Type: Depth (in- Remarks:		olex.					Hydric Soll Pre	ssent? Yes No X

Project/Site: Middleton Estate 241 ac JD Reference Site	City/County: Chambers County	Sampling Date: May 13, 2016
Applicant/Owner: Billy York	State: Texas	Sampling Point: 412
Investigator(s): Lee Sherrod	Section, Township, Range;	31, 32, 73, 44
Landform (hillslope, terrace, etc.): pasture	Local relief (concave, convex, none): flat	Slope (%): ~1
	29.757214° Long: -94.377424°	Datum:
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, ra		ssification: Pf
	cantly disturbed? Are "Normal Circumstance ally problematic? (If needed, explain any an	es" present? Yes No swers in Remarks.)
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No	is the Sampled Area within a Wetland? Yes	X No
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Hydrogen Su Oxidized Rhiz Presence of I	la (B13) Sparsely s (B15) (LRR U) Drainage lifide Odor (C1) zospheres along Living Roots (C3) Reduced Iron (C4) Reduction in Tilled Soils (C6) urface (C7) Geomory in in Remarks) Sparsely Sparsely Moss Tri Dry-Sea: Crayfish Saturatio Geomory Shallow FAC-Net	Soil Cracks (86) Vegetated Concave Surface (88) Patterns (810) m Lines (816) son Water Table (C2) Burrows (C8) phic Position (D2) Aquitard (D3) utral Test (D5) um moss (D8) (LRR T, U)
Field Observations:		12-0(-2
Surface Water Present? Yes No Depth (ir Water Table Present? Yes No Depth (ir Saturation Present? Yes No Depth (ir (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	mches): Wetland Hydrology Pre	esent? Yes X No
Remarks:		

US Army Corps of Engineers

	200	ants.	Terror 2	Sampling Point: 412
Tree Stratum (Plot size:)		Dominant		Dominance Test worksheet:
The second secon	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC:
				That Are OBL, FACW, or FAC:3 (A)
		-	_	Total Number of Dominant
			-	Species Across All Strata: (B)
v <u>-</u>			_	Percent of Dominant Species
<u> </u>				That Are OBL, FACW, or FAC: 75% (A/
k			_	Prevalence Index worksheet:
-		-		Total % Cover of:Multiply by:
	_	3.	~	OBL species x1 =
	0%			FACW species x 2 =
50% of total cover:0%	20% of	total cover	0%	
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
Sesbania drummondii	5	Yes .	FACW	FACU species x 4 =
		-	-	UPL species x 5 =
n		-	9.	Column Totals:0 (A)0 (E
		-	2	Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
N-				1 - Rapid Test for Hydrophytic Vegetation
				PEEC 1. C.
				2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01
Z. T.				
	5%	= Total Cov	/er	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:3%	5%	= Total Cov	/er	
50% of total cover;	20% of	= Total Cov total cover	/er :1%	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover; 3% lerb Stratum (Plot size:) Schizachyrium scoparium divergans	5% 20% of	= Total Cover	/er	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover; 3% Herb Stratum (Plot size;) Schizactyrium scoparium divergens Eleochans cellulosa	20% of	Total Cover	Ver	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must
50% of total cover; 3% Herb Stratum (Plot size;) Schizactyrium scoparium divergens Eleochans cellulosa	20 60 20	Total Cover total cover Yes Yes	NL OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover;	20% of 20 20 20 2	Total Cover total cover Yes Yes Yes	NL OBL FAC	Problematic Hydrophytic Vegetation [†] (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless
50% of total cover;	20% of 20 20 20 2	Total Cover total cover Yes Yes Yes	NL OBL	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover;	20% of 20 60 20 2 3	Yes Yes No	NL OBL FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover;	20% of 20 20 20 3	Yes No No	NL OBL FAC FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover;	20% of 20 20 2 3	Yes No No	NL OBL FAC FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	20% of 20 20 3	Total Cover Yes Yes No	NL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover;	20% of 20 60 20 2 3	Total Cover total cover Yes Yes Yes No	NL OBL FAC FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	5%6 20% of 20 60 20 2 2	= Total Cover total cover Yes Yes No No	NL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	5%6 20% of 20 60 20 2	= Total Cover total cover Yes Yes No No	NL OBL FAC FAC	Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover;	5%6 20% of 20 60 20 20 2	Total Cover total cover yes yes No No	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	5%6 20% of 20 60 20 20 3 105%	Total Cover Yes Yes No No Total Cover	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	5%6 20% of 20 60 20 20 3 105%	Total Cover Yes Yes No No Total Cover	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover; 3% Herb Stratum (Plot size;) Softzactyrirum scoparium divergens Eleochans cellulosa Suncus acuminatus Va amnua Suncus acuminatus	20% of 20% of 20 20 2 3 3 105% 20% of	Total Cover total	NL OBL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover:	5%6 20% of 20 60 20 2 3 105% 20% of	Total Cover Yes Yes No No Total Cover Total Cover Yes	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover:	5%6 20% of 20 60 20 2 3 105% 20% of	Total Cover Yes Yes No No Total Cover Total Cover Yes	NL OBL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover; 3% Herb Stratum (Plot size;) Schizactyrium scoparium divergans Eleochans cellulosa 3, Juncus acuminatus I, Iva amnua 5, Paspalum dilatetum 6, 2 1, 2 1, 2 2 2 50% of total cover; 53% Moody Vine Stratum (Plot size:) Rubus suus	5%6 20% of 20 60 20 2 3 3 105% 5 20% of 5	Total Cover total cover Yes Yes No No	NL OBL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover; 3% Herb Stratum (Plot size;) Schizactyrium scoparium divergans Eleochans cellulosa 3, Juncus acuminatus I, Iva amnua 5, Paspalum dilatetum 6, 2 1, 2 1, 2 2 2 50% of total cover; 53% Moody Vine Stratum (Plot size:) Rubus suus	5%6 20% of 20 60 20 2 3 3 105% 5 20% of 5	Total Cover total cover yes yes No No	NL OBL OBL FAC FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover;	5%6 20% of 20 60 20 2 3 3	= Total Cover Yes Yes No No Total Cover Total Cover Yes Total Cover Yes	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover;	5%6 20% of 20 60 20 2 3 3	= Total Cover Yes Yes No No Total Cover Total Cover Yes Total Cover Yes	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Solid Stratum Solid Stratu	5%6 20% of 20 60 20 2 3 105% 20% of	= Total Cover Yes Yes No No Total Cover Total Cover Yes Total Cover Yes	NL OBL OBL FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless theight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Soft Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Muck Presence (A8) (LRR U) 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) Derick Dark Surface (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Derick Dark Surface (S7) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (If observed): Type:	kture Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration	NOTION 9
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Matrix (F2) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 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) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Sulface (S8) (LRR S, T, U) Polyalue Below Surface (S9) (LRR O, T, U) Depleted Matrix (S6) Dark Surface (S7) (LRR P, T, U) Polyalue Below Surface (S9) (LRR O, P, T) Depleted Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Surface (S8) (LRR S, T, U) Indicator Surface (S9) (LRR P, T, U) Depleted Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Houck Presence (A8) (LRR P, T, U) Depleted Matrix (F3) Depleted Below Matrix (F3) Muck Presence (A8) (LRR P, T, U) Depleted Below Matrix (F3) Peleted Matrix (F3) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Muck (A9) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydramatics (Matrix (Ma	
Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Hock Presence (A8) (LRR P, T, U) Depleted Matrix (F3) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Depleted Below Matrix (F7) Depleted Below Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Sulface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR P, S, T, U) Restrictive Layer (If observed): Hydrogen Surface (S9) (LRR S, T, U) Thin Dark Surface (S9) (LRR P, S, T, U) Restrictive Layer (If observed): Hydrogen Surface (S9) (LRR S, T, U) Type: Depth (inches): Hydrogen Surface (S9) (LRR S, T, U) Type: Depth (inches): Hydrogen Surface (S9) (LRR S, T, U) Type: Depth (inches): Hydrogen Surface (S9) (LRR S, T, U) Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Depth	
Histosol (A1)	
Histosol (A1)	
Histosol (A1)	ocation: PL=Pore Lining, M=Matrix. licators for Problematic Hydric Soils ³ ;
Black Histic (A3)	1 cm Muck (A9) (LRR O)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 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 Q, S) Sandy Mucky Mineral (S1) (LRR Q, S) Sandy Redox (S5) Derived Below Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR Q, S) Sandy Mucky Mineral (S1) (LRR Q, S) Sandy Redox (S5) Derived Dark Surface (S7) (LRR P, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Sulfide (A4) Depleted Matrix (F2) Redox Derk Surface (F6) Redox Derk Surface (F7) Mark (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR Q, P, T) Umbric Surface (F13) (LRR P, T, U) Depleted Ochric (F13) (LRR P, T, U) Depleted Ochric (F13) (LRR P, T, U) Depleted Dark Surface (F13) (LRR P, T, U) Reduced Vertic (F18) (MLRA 150A, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (If observed): Type: Depth (inches): Hydrogen Surface (A15)	2 cm Muck (A10) (LRR S)
Stratified Layers (A5)	Reduced Vertic (F18) (outside MLRA 150A, E
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Urbon-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Urbon-Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (If observed): Type: Depth (inches): Hydereric Macky Mineral (A7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydereric Macky Mineral (A7) (LRR P, S, T, U)	Piedmont Floodplain Soils (F19) (LRR P, S, T Anomalous Bright Loamy Soils (F20)
Muck Presence (A8) (LRR U) I 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 Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Detta Ochric (F13) (MLRA 1514) Reduced Vertic (F18) (MLRA 1514) Stripped Matrix (S6) Dark Surface (S7) (LRR P, T, U) Restrictive Layer (If observed): Type: Depth (inches): Remarks:	(MLRA 153B)
□ 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) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: □ Depth (inches): □ Hydered Corric (F10) (MLRA 151) □ Depth (MLRA 151) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A) □ Hydered Carrier (If observed): □ Depth (inches): □ Hydered Carrier (A11) (MLRA 151) □ Depth (Inches): □ Hydered Carrier (A12) (MLRA 151) □ Depth (Inches): □ Depth (Inches): □ Hydered Carrier (A12) (MLRA 151) □ Depth (Inches): □ Depth (Inches): □ Hydered Carrier (A12) (MLRA 151) □ Depth (Inches): □ Depth (Inches): □ Hydered Carrier (A12) (MLRA 151) □ Depth (Inches): □ Depth (Inch	Red Parent Material (TF2)
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) Pledmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydered Vertic (F11) (MLRA 151) Depth (MLRA 150A, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Hydered Vertic (F18) (MLRA 150A, 150B) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Hydered Vertic (F18) (MLRA 150A, 150B) Hyder	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Thick Dark Surface (A12)	Other (Explain in Remarks)
□ Sandy Mucky Mineral (S1) (LRR O, S) □ Delta Ochric (F17) (MLRA 151) □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149 □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): □ Type: □ □ □ Depth (inches): □ Hydramarks:	SIndicators of hydrophytic vegetation and
□ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149 Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: □ Depth (inches): □ Hydramarks:	wetland hydrology must be present,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149 Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hyde	unless disturbed or problematic.
□ Stripped Matrix (S6) □ Anomalous Bright Loarny Soils (F20) (MLRA 149 □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: □ □ Depth (inches): □ Hyo Remarks:	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	A, 153C, 153D)
Type: Depth (inches): Hyo Remarks:	
Depth (inches): Hydrarks:	
Remarks:	iric Soil Present? Yes X No
	ric Soil Present? Yes No
Beaumont clay.	

Project/Site: Middleton Estate 241 ac JD Reference Site	City/County: Char	mbers County	Sampling Date: May 13, 2016
Applicant/Owner: Billy York		State: Texas	Sampling Point: 413
Investigator(s): Lee Sherrod	Section, Township		777.3377.11.0
Landform (hillslope, terrace, etc.): pasture	Local relief (conca	ve, convex, none): flat	Slope (%): ~1
		Long: -94.377126°	Datum:
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slop			cation: none
	significantly disturbed? naturally problematic?	No (If no, explain in la Are "Normal Circumstances" (If needed, explain any answint locations, transect	present? Yes X No ers in Remarks.)
Hydric Soil Present? Yes X	Is the Sam within a W	pled Area letland? Yes	No.
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Marl Dr. Presen	that apply) Fauna (B13) posits (B15) (LRR U) per Sulfide Odor (C1) de Rhizospheres along Living F ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (uck Surface (C7) Explain in Remarks)	Roots (C3) Surface So Sparsely Ve Drainage P. Moss Trim Dry-Seasor Crayfish Bu Saturation V Geomorphi Shallow Aq FAC-Neutra	Water Table (C2) rrows (C8) /īsible on Aerial Imagery (C9) c Position (D2) uitard (D3)
Field Observations:		Spriagrium	moss (Do) (ERR 1, O)
Surface Water Present? Yes X No De De No X De	opth (inches); 0-1 opth (inches); 2 opth (inches); 2 opth (inches); 2	Wetland Hydrology Presetions), if available:	nt? Yes X No
	Care Care and		
Remarks:			

US Army Corps of Engineers

And Administration of the Control of		Dominant		Dominance Test worksheet:
ree Stratum (Plot size:)		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:4(A)
			-	
				Total Number of Dominant Species Across All Strata: 4 (B)
				Species Across Air Strata. (B)
				Percent of Dominant Species That Are ORL EACH or EACH 100% (A/
			_	That Are OBL, FACW, or FAC:(A/
5			-	Prevalence Index worksheet:
7			<u> </u>	Total % Cover of: Multiply by:
3	_	3	-	OBL species x 1 =
	0%	= Total Cov	er	
50% of total cover:0%	20% of	total cover	0%	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
Baccharis halimifolia	25	Yes	FAC	FACU species x 4 =
2		-		UPL species x 5 =
3,			y.	Column Totals:0 (A)0 (E
i				Prevalence Index = B/A =
5.				
3		-	=	Hydrophytic Vegetation Indicators:
/k		-0		
7				1 - Rapid Test for Hydrophytic Vegetation
				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
			e	
3	25%	- Total Cov	er	2 - Dominance Test is >50%
3	25%	- Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹
3	25%	- Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)
3	25%	- Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover;	25% = 20% of	= Total Cov	er :_5%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must
	25% ; 20% of	= Total Cov total cover	7er :5%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata:
50% of total cover; 13% Herb Stratum (Plot size;) [Schizactyrium scoparium divergens 2 Eleocharis cellulosa 3 Junicus effusius	25% of 5	= Total Cov total cover	5% NL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover; 13% Herb Stratum (Plot size;) 1 Schizactyrium scoparium divergens 2 Eleocharis cellulosa 3, Junicus effusus 4, Junicus aduminatus	25% s 20% of 5 60 20	= Total Cov total cover No Yes Yes	S% NL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. □ Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
50% of total cover; 13% Herb Stratum (Plot size;) [Schizactyrium scoparium divergens 2 Eleochars cellulosa 3, Junicus effusus 4, Junicus aduminatus 5, Paspallum dilatatum	25% ; 20% of 5 60 20 20 5	= Total Cov total cover	NL OBL OBL FAC	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover; 13% Herb Stratum (Plot size;) 1 Schizachyvium scoparium divergens 2 Eleocharis cellulosa 3, Junicus effusius 4, Junicus aduminatus 5, Paspatum dilatatum 5 Saccharum strictum	25% : 20% of 5 60 20 20 5 15	Total Cover No. Yes Yes Yes No. No.	S%6 NL OBL OBL FAC OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover; 13% Herb Stratum (Plot size;) 1 Schizactyvium scoparium divergens 2 Eleocharis cellulosa 3, Junicus effusus 4, Junicus aduminatus 5, Paspattim dilatatum 5, Saccharum strictum	25% ; 20% of 5 60 20 20 5	Total Cover No. Yes Yes Yes No. No.	NL OBL OBL FAC	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.
50% of total cover; 13% Herb Stratum (Plot size;) 1 Schizachyrium scoparium divergens 2 Eleocharis cellulosa: 3 Junicus effusus 4 Junicus aduminatus 5 Paspaltim dilatatum 5 Saccharum strictum	25% : 20% of 5 60 20 20 5 15	Total Cover No. Yes Yes Yes No. No.	S%6 NL OBL OBL FAC OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
50% of total cover; 13% Herb Stratum (Plot size;) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncus eduninatus 5. Paspaltim dilatatum 6. Saccharum strictum 7.	25% s	Total Cover No Yes Yes Yes No No	S%6 NL OBL OBL FAC OBL	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover; 13% Herb Stratum (Plot size;) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncus eduninatus 5. Paspaltim dilatatum 6. Saccharum strictum 7.	25% s	Total Cover No Yes Yes Yes No No	S%6 NL OBL OBL FAC OBL	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover; 13% Herb Stratum (Plot size;) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncus eduurus 4. Juncus eduminatus 5. Paspaltim dilatatum 6. Saccharum strictum 7. 8. 9. 10.	25% s	Total Cover No Yes Yes Yes No No	S%6 NL OBL OBL FAC OBL	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
50% of total cover; 13% Herb Stratum (Plot size;) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncus eduluss 4. Juncus eduminatus 5. Paspaltim dilatatum 6. Saccharum strictum 7. 8. 9. 10.	25% s	Total Cover No Yes Yes Yes No No	S%6 NL OBL OBL FAC OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size;) 1 Schizachyrium scoparium divergens 2 Eleocharis cellulosa 3, Junicus erifusus 4, Junicus aduminatus 5, Paspallum dilatatum 6, Saccharum strictum 7, 8, 9, 10,	25% s	Total Cover No Yes Yes Yes No No	Per Service Se	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size:) 1 Schizachyrium scoparium divergens 2 Eleocharis cellulosa 3 Junicus effusus 4 Junicus aduminatus 5 Paspaltim dilatatum 5 Saccharum strictum 7 8 9 10 11 12	25% : 20% of 5 60 20 20 15 15	Total Cover No Yes Yes Yes No No Total Cover No Total Cover No Total Cover	rer 5% NL OBL OBL OBL OBL OBL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless cheight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size:) [Schizachynium scoparium divergens 2. Eleocharis cellulosa. 3. Junicus effusius 4. Junicus effusius 5. Passatum dilatetum 5. Saccharum strictum 7 8 9 10 11 12 50% of total cover; 63% Woody Vine Stratum (Plot size:	25% 3 20% of 5 60 20 20 5 15 45 45 45 45 45 45 45 45 45 45 45 45 45	Total Coveron No. Yes Yes Yes No. No. No. Total Coveron No. No. No. Total Coveron No.	rer 5% NL OBL OBL OBL OBL OBL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size:) 1 Schizachyrium sceparium divergens 2 Eleochans cellulosa 3 Juncus effusus 4 Juncus edulus administus 5 Paspallum dilatatum 6 Saccharum strictum 7	25% 3 20% of 5 60 20 20 5 15 45 45 45 45 45 45 45 45 45 45 45 45 45	Total Coveron No. Yes Yes Yes No. No. No. Total Coveron No. No. No. Total Coveron No.	rer 5% NL OBL OBL OBL OBL OBL OBL	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
Herb Stratum (Plot size:) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Junicus effusus 4. Junicus aduminatus 5. Paspalum dilatatum 6. Saccharum strictum 7 8 9 11 12 50% of total cover: Woody Vine Stratum (Plot size:) 1 Rubus suus	25% 5 60 20 20 5 15 15 125% 20% of	Total Coveron No. Yes Yes Yes No. No. No. Total Coveron No. No. No. Total Coveron No.	Per Control of the Co	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover;	25% : 20% of 5 60 20 20 5 15 15 125% : 20% of 5	Total Cover No Yes Yes Yes No No Total Cover No Yes Yes Yes Yes Yes Yes Yes	PAC - 25%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size:) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncius effusus 4. Juncius acuminatus 5. Paspallum dilatatum 6. Saccharum strictum 7 8 9 110 12 50% of total cover: 6. Woody Vine Stratum (Plot size:) 7 7 8 9 10 11 7 7 8 9 10 11 7 8 9	25% 5 60 20 5 15 15 125% 20% of	Total Cover No Yes Yes Yes No No Total Cover No Yes Yes Yes No No Total Cover Total Cover Total Cover	PAC - 25%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover; 13% Herb Stratum (Plot size:) 1. Schizachyrium scoparium divergens 2. Eleochans cellulosa 3. Juncius effusus 4. Juncius acuminatus 5. Paspallum dilatatum 6. Saccharum strictum 7. 8. 9. 10. 11. 12. 50% of total cover: 63% Woody Vine Stratum (Plot size:) 1. Rubus suus 4. Juncius suus 4. Juncius suus 4. Juncius acuminatus 50% of total cover: 63% Woody Vine Stratum (Plot size:) 1. Rubus suus	25% 5 60 20 5 15 15 125% 20% of	Total Cover No Yes Yes Yes No No Total Cover No Yes Yes Yes No No Total Cover Total Cover Total Cover	PAC - 25%	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) fall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft fall. Woody vine – All woody vines greater than 3.28 ft in.
50% of total cover;	25% : 20% of 5 60 20 20 15 15 20% of 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Total Cover No Yes Yes No No Total Cover Total Cover Total Cover Yes	Section	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless theight. Sapling/Shrub — Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb — All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine — All woody vines greater than 3.28 ft in height.
Solid Stratum Solid Stratu	25% : 20% of 5 60 20 20 5 15 15 20% of 5 5 20% of 5	Total Cover No Yes Yes Yes No No Total Cover No Yes Yes Yes No No Total Cover Total Cover Total Cover	Section	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is ≤3.0¹ □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless theight. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. All States	ture Remarks
107R 2/1 100 slitylow 3-24 107R 2/1 100 clay 1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 1Loany Matrix (Sa) lndicators: (Applicable to all LRRs, unless otherwise noted.) Ind 1 Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) 3 Stratified Layers (A5) Depleted Matrix (F2) 3 Stratified Layers (A6) (LRR P, T, U) Redox Dark Surface (F6) 4 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F7) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) 5 coast Prairie Redox (A16) (MLRA 150A) Depleted Ochric (F11) (MLRA 151) 5 Sandy Mucky Mineral (S1) (LRR O, S) Depleted Ochric (F17) (MLRA 151) 5 Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) 5 Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) 5 Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) 6 Restrictive Layer (If observed): 7 Type:	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	m
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Ind Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	cation: PL=Pore Lining, M=Matrix.
Histosol (A1)	cators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	1 cm Muck (A9) (LRR O)
Hydrogen Sulfide (A4)	2 cm Muck (A10) (LRR S)
Stratified Layers (A5)	Reduced Vertic (F18) (outside MLRA 150A,
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Depleted Dark Surface (F7) Depleted Dark Surface (F7) Depleted Dark Surface (A11) Redox Depressions (F8) Depleted Below Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A) Dark Surface (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (If observed): Type:	Piedmont Floodplain Soils (F19) (LRR P, S, T
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (If observed): Type: Depth (inches): Hydi	Anomalous Bright Loamy Soils (F20)
Muck Presence (A8) (LRR U) Redox Depressions (F8) Marl (F10) (LRR U) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Sondy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F17) (MLRA 151) Sandy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F17) (MLRA 151) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Siripped Matrix (S6) Anomalous Bright Loamy Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Depth (inches): Type: Depth (inches): Hydrarks:	(MLRA 153B)
□ 1 cm Muck (A9) (LRR P, T) □ Marl (F10) (LRR U) □ Depleted Below Dark Surface (A11) □ Depleted Ochric (F11) (MLRA 151) □ Thick Dark Surface (A12) □ Iron-Manganese Masses (F12) (LRR O, P, T) ▼ Coast Prairie Redox (A16) (MLRA 150A) □ Umbric Surface (F13) (LRR P, T, U) □ Sandy Mucky Mineral (S1) (LRR O, S) □ Delta Ochric (F17) (MLRA 151) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Pledmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loarny Soils (F20) (MLRA 149A) □ Restrictive Layer (If observed): Type: □ Depth (inches): □ Hydric Remarks:	Red Parent Material (TF2)
Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Delta Ochric (F17) (MLRA 151) ☐ Sandy Gleyed Matrix (S4) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Sandy Redox (S5) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Restrictive Layer (If observed): ☐ Type: ☐ Depth (inches): ☐ Hydi	Very Shallow Dark Surface (TF12)
Thick Dark Surface (A12)	Other (Explain in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydi	Standings are at hudenphidia in postation and
□ Sandy Mucky Mineral (S1) (LRR O, S) □ Detta Ochric (F17) (MLRA 151) □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 149A) □ Stripped Matrix (S6) □ Anomalous Bright Loamy Soils (F20) (MLRA 149A) □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): □ Type: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Indicators of hydrophytic vegetation and wetland hydrology must be present.
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150A, 150B) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydrical	unless disturbed or problematic.
Sandy Redox (S5) ☐ Pledmont Floodplain Soils (F19) (MLRA 149A) ☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Restrictive Layer (If observed): Type: Depth (inches): Hydrical Hy	ameas disturbed of problematic.
Stripped Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 1494) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydi Remarks:	
Restrictive Layer (if observed): Type: Depth (inches): Hyde Remarks:	, 153C, 153D)
Type: Bepth (inches): Hyde Remarks:	100
Depth (inches): Hydrarks:	
Remarks:	
Remarks:	ic Soil Present? Yes X No
Beaumont clay.	
Beaumont clay.	

Project/Site: Middleton Estate 241 ac JD Reference Site	City/County: Chambers Cour	nty	Sampling Date: May 13, 2016
Applicant/Owner: Billy York		State: Texas	Sampling Point: 414
Investigator(s): Lee Sherrod	Section, Township, Range:		110000000000000000000000000000000000000
Landform (hillslope, terrace, etc.): pasture	Local relief (concave, convex,	none): flat	Slope (%): ~1
		94.377181°	Datum:
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, r			ification: none
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes X No	(If no, explain in	Remarks.)
		Circumstances	" present? Yes X No
			wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point location	ons, transec	ts, important features, etc
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area		
Hydric Soil Present? Yes X No	within a Wetland?	Ves [X No
Wetland Hydrology Present? Yes X No	The state of the s	100	110
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply)	Surface S	oil Cracks (B6)
Surface Water (A1) Aquatic Fau	na (B13)	Sparsely \	/egetated Concave Surface (B8)
	ts (B15) (LRR U)		Patterns (B10)
	ulfide Odor (C1)		Lines (B16)
	izospheres along Living Roots (C3)	4-3	on Water Table (C2)
	Reduced Iron (C4)		urrows (C8)
Drift Deposits (B3) Recent Iron Algal Mat or Crust (B4) Thin Muck S	Reduction in Tilled Soils (C6)		Visible on Aerial Imagery (C9) nic Position (D2)
	ain in Remarks)		guitard (D3)
Inundation Visible on Aerial Imagery (B7)			ral Test (D5)
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No X Depth (inches):		
Water Table Present? Yes No X Depth (inches):		
	inches): Wetland h	lydrology Pres	ent? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	al photos previous inspections) if ava	ilable:	
Describe Necorded Data (stream gauge, monitoring well, acre	ii priotos, previous mapecilona), n ava	madic.	
Remarks:			
resilients.			

US Army Corps of Engineers