Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 07-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 1
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 20 T 7s R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex Slope: 20.0 % /
Subregion (LRR or MLRA): LRR T Lat.:	30° 25' 0.964" N Long.: 89° 37" 12.584" W Datum: NAD83
Soil Map Unit Name: EuB, Escambia loamy fine sand, 2 to 5 percent sle	
Are climatic/hydrologic conditions on the site typical for this time of year	
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation . , Soil . , or Hydrology . naturally p	oroblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No	Is the Sampled Area
Hydric Soil Present? Yes ○ No ⑤	Ver No No
Wetland Hydrology Present? Yes O No	within a Wetland?
Remarks:	
Small incline above riparian drainage area in the NE portion of the A	OI near the fenceline.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1	3) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15)	5) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide 6	Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizosph	eres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduc	ced Iron (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reduc	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	(C7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in F	Remarks) Shallow Aquitard (D3)
Inundation Visible on Aeriai Imagery (B7)	✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present?  (includes capillary fringe)  Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ⑥
(includes capillary fringe)   Describe Recorded Data (stream gauge, monitoring well, aerial photo	or provious inspections), if availables
Describe Recorded Data (stream gauge, monitoring well, aeriai photo	s, previous inspections), if available.
Remarks:	
No hydrology indicators.	

Tree Stratum (Plot size: 30 m ) Pinus elliottii	% Cove	e Rei.	.Strat. over	Indicator Status	Dominance Test worksheet:
rinus elilottai					Number of Dominant Species
			73.2%	FACW	That are OBL, FACW, or FAC:7 (A)
Quercus nigra	10		24.4%	FAC	Total Number of Dominant
Quercus falcata		Η	2.4%	FACU	Species Across All Strata: 7 (B)
	0	Ш.	0.0%		De contract described Contracts
5.		Щ	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	. 0	Ш	0.0%		That Are Obl., FACW, OF FAC.
•	0		0.0%		Prevalence Index worksheet:
A			0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 20.5 20% of Total Cover: 8.2		= Tota	al Cove		OBL species $0 \times 1 = 0$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m					FACW species 101 x 2 =202
		<b>V</b>	E0.00/	FAC	V
Nyssa sylvatica Liquidambar styraciflua	. 13	_	50.0%	FAC	
The second secon			33.3%	. FAC	FACU spectes $\frac{1}{x} \times 4 = \frac{4}{x}$
Magnolia virginiana		Ц	16.7%	FACW	UPL species $0 \times 5 = 0$
		Ш_	0.0%		Column Totals: 152 (A) 356 (B)
	0	$\sqcup_{-}$	0.0%		December and ov = P/A = 2.243
	0		0.0%		Prevalence Index = B/A = 2.342
	0		0.0%		Hydrophytic Vegetation Indicators:
	0		0.0%		D & Book Took for Monday book to Manufaction
50% of Total Cover: 15 20% of Total Cover: 6	30	- Tota	al Cove		1 - Rapid Test for Hydrophytic Vegetation
30% di l'Otal Cover. 15 20% di l'Otal Cover. 6	30	- 100	ai COACI		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 1
Ilex coriacea	50	<b>Y</b>	76.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex glabra	5		7.7%	FACW	
Ilex vomitoria	10		15.4%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	0		0.0%		be present, unless disturbed or problematic.
			0.0%	-	Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
POW (TIME) - 22 - 200 (TIME) - 42	g	•		1,2314	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 32.5 20% of Total Cover: 13	65	= 10ta	al Cover		(7.6 cm) or larger in diameter at breast height (DBH).
lerb Stratum (Plot size: 30 m					
1 Arundinaria tecta	1	- J	9.1%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
		<b>V</b>	90.9%	FACW	than 3 in. (7.6 cm) DBH.
Ilex corlacea					thair o in. (1.0 only DD1).
			0.0%		
3	0_		0.0%		Sanling/Shrub - Woody plants, excluding vines, less
3. 4.	0_0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
3. 4.	0 0		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
].  -  -  -	0 0		0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines,
3. 1. 3.	0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -		0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
3. 5. 5.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
3. 5. 5.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including
3. 4. 5. 6. 7.	0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
3. 4. 5. 6.	0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
3. 4. 5. 6. 7.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
3. 4. 5. 3. 7.	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
3. 4. 5. 6. 7. 8. 9. 0. 1. 2. 50% of Total Cover: 5.5 20% of Total Cover: 2.2	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 1. 2. 50% of Total Cover: 5.5 20% of Total Cover: 2.2	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tail.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0 0 0 0 0 0 0 0 0 0 11		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
3. 4. 5. 6. 7. 8. 9. 9. 1. 2. 50% of Total Cover: 5.5 20% of Total Cover: 2.2 Voody Vine Stratum (Plot size: ) Vitis rotundifolia	0 0 0 0 0 0 0 0 0 11		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	-	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine - All woody vines, regardless of height.
3. 4. 5. 6. 7. 8. 9. 0.	0 0 0 0 0 0 0 0 0 11		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine - All woody vines, regardless of height.

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	iption: (De		the depth	needed to document the indicator or con	firm the	absence of indicato	rs.)
Depth		Matrix		Redox Features			
(inches) 0-4	10YR	(moist)	100	Color (moist) % Type 1	Loc2	Texture Loamy Sand	Remarks Fine grained
		3/2		777 77 a Para 757 77 a 47 What a 44 A			Fine Grained
4-12	10YR	5/4	100		-	Sandy Loam	Fine grained sands
12-20	10YR	5/6	100			Sandy Loam	rine granied sailus
Type: C=Cond  Hydric Soil I		=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grain	s <sup>2</sup> Loca		
Histosol (A				Polyvalue Below Surface (S8) (LRR S	T 10		roblematic Hydric Soils <sup>3</sup> :
_ `	edon (AZ)					1 cm Muck (/	
Black Histi				☐ Thin Dark Surface (S9) (LRR S, T, U)		2 cm Muck (/	
_				Loamy Mucky Mineral (F1) (LRR O)		Reduced Ver	tic (F18) (outside MLRA 150A,B)
_	Sulfide (A4)			Loamy Gleyed Matrix (F2)		Piedmont Flo	odpłain Soils (F19) (LRR P, S, T)
	_ayers (A5)			Depleted Matrix (F3)		Anomalous B	right Loamy Soils (F20) (MLRA 153B)
Organic Bo	odies (A6) (L	.RR P, T, l	J)	Redox Dark Surface (F6)		Red Parent M	
5 cm Muck	ky Mineral (A	17) (LRR P	, T, U)	Depleted Dark Surface (F7)		=	Dark Surface (TF12)
Muck Pres	ence (A8) (L	.RR U)		Redox Depressions (F8)		_	n in Remarks)
1 cm Muck	(A9) (LRR I	P, T)		Marl (F10) (LRR U)			ii iii Remarks)
	Below Dark S		11)	Depleted Ochric (F11) (MLRA 151)			
	Surface (A1	_	,				
_	•	-	15041	Iron-Manganese Masses (F12) (LRR (	J, P, 1)		
_	rie Redox (A		-	Umbric Surface (F13) (LRR P, T, U)			
	ck Mineral (S		, S)	Delta Ochric (F17) (MLRA 151)		3 <sub>Todien</sub>	tors of hydrophytic vegetation and
Sandy Gley	yed Matrix (S	54)		Reduced Vertic (F18) (MLRA 150A, 1	50B)	weti	tors of hydrophytic vegetation and and and hydrology must be present,
Sandy Red	iox (S5)			Piedmont Floodplain Soils (F19) (MLR	A 149A)		lless disturbed or problematic.
Stripped M	latrix (S6)			Anomalous Bright Loamy Soils (F20)	MLRA 149	9A. 153C. 153D)	·
Dark Surfa	ce (S7) (LRF	R P, S, T, I	J)			,,	
Restrictive La	ver (if obse	erved):					
	yer (ii obbi						
Type:	ac):					Hydric Soil Presei	nt? Yes O No 💿
Depth (inch	es):			1. The second se		<u> </u>	
Remarks:							
Soil has dry cr	umbly, loa	my textu	re. No sat	uration.			

The state of the s	County: Waveland - Hancock Sampling Date: 07-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up- 2
Investigator(s): Lars Larson, Randy Ellis Sec	ction, Township, Range: \$ 20 T 7s R 16 W
Landform (hillslope, terrace, etc.): Hillside Loca	I relief (concave, convex, none): convex Slope: 3.0 % / 1.7°
Subregion (LRR or MLRA): LRR T Lat.: 30°	24' 53.090" N <b>Long.:</b> 89° 36' 51.859" W <b>Datum:</b> NAD83
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes   No   (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly dis	turbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation . , Soil . , or Hydrology . naturally proble	·
SUMMARY OF FINDINGS - Attach site map showing sampli	ng point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	To the Samulad Aven
Hydric Soil Present? Yes O No	Is the Sampled Area
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?
Remarks: Sideslope area within approximately 50 N-NE of Wet-2.	
Sidestope area within approximately 50 N-NC of weet-2.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
☐ Surface Water (A1) ☐ Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRi	_ ' ' ' '
Saturation (A3) Hydrogen Sulfide Odor (	C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres a	long Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	on (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in	n Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Remark	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:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes No O Depth (inches):	
	Wetland Hydrology Present? Yes ○ No •
(includes capillary fringe) Yes V No V Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

2. Liquidambar styraciflua 5 5 6 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	75.0% 25.0% 0.0% 0.0% 0.0% 0.0% 70.0% 23.8% 4.8% 0.0% 0.0%	FACW FAC FACW FAC FACW	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)  Prevalence Index worksheet:
2. Liquidambar styracliflua 5 6 6 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	25.0%  0.0%  0.0%  0.0%  0.0%  0.0%  71.4%  23.8%  4.8%  0.0%	FACW FAC	Total Number of Dominant Species Across All Strata: 5 (B)  Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)  Prevalence Index worksheet:
3.	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%  71.4% 23.8% 4.8% 0.0%	FACW	Species Across All Strata: 5 (B)  Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)  Prevalence Index worksheet:
4. 0   0   0   0   0   0   0   0   0   0	0.0% 0.0% 0.0% 0.0%  71.4% 23.8% 4.8% 0.0%	FACW FAC	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)  Prevalence Index worksheet:
5. 0   0   0   0   0   0   0   0   0   0	0.0% 0.0% 0.0% 0.0%  Total Cove  71.4% 23.8% 4.8% 0.0%	FACW FAC	That Are OBL, FACW, or FAC: 100.0% (A/B)  Prevalence Index worksheet:
6. 0	0.0% 0.0% 0.0% Total Cove 71.4% ✓ 23.8% 4.8% 0.0%	FACW FAC	That Are OBL, FACW, or FAC:       100.0%       (A/B)         Prevalence Index worksheet:
7. 0	0.0% 0.0%  Total Cove  71.4%  23.8% 4.8% 0.0%	FACW FAC	Prevalence Index worksheet:
30	0.0%  Total Cove  71.4%  23.8%  4.8%  0.0%	FACW FAC	Total % Cover of Multiply by:  OBL species 1 x 1 = 1  FACW species 107 x 2 = 214  FAC species 22 x 3 = 66
8. 0 0 50% of Total Cover: 10 20% of Total Cover: 4 20 = Sapling or Sapling/Shrub Stratum (Plot size: 30 m ) 1. Pinus elilottil 30 9 2. Quercus nigra 10 9 3. Magnolia virginiana 2 10 9 5. 0 10 10 10 10 10 10 10 10 10 10 10 10 1	Total Cove  ✓ 71.4%  ✓ 23.8%  ✓ 4.8%  — 0.0%	FACW FAC	OBL species         1         x 1 =         1           FACW species         107         x 2 =         214           FAC species         22         x 3 =         66
Sapling or Sapling/Shrub Stratum (Plot size: 30 m) 1. Pinus elilottil 30 k 2. Quercus nigra 10 k 3. Magnolia virginiana 2 k 4. 0 5. 0 5. 0 6.	✓ 71,4% ✓ 23.8% 4.8% 0.0%	FACW FAC	OBL species         1         x 1 =         1           FACW species         107         x 2 =         214           FAC species         22         x 3 =         66
Sapling or Sapling/Shrub Stratum (Plot size: 30 m) 1. Pinus elilottil 30 k 2. Quercus nigra 10 k 3. Magnolia virginiana 2 k 4. 0 C 5. 0 C	✓ 71,4% ✓ 23.8% 4.8% 0.0%	FACW FAC	FACW species 107 x 2 = 214  FAC species 22 x 3 = 66
1. Pinus elitottii       30         2. Quercus nigra       10         3. Magnolia virginiana       2         4.       0         5.       0         6.       0	23.8% 4.8% 0.0%	FAC	FAC species <u>22</u> x 3 = <u>66</u>
2. Quercus nigra       10         3. Magnolia virginiana       2         4. 0       0         5. 0       0         6. 0       0	23.8% 4.8% 0.0%	FAC	
3. Magnolia virginiana 2	4.8% 0.0%		FACU species $0 \times 4 = 0$
4. 0 0 5. 0 0 3. 0 0	0.0%	FACW	
5. <u> </u>			UPL species $0 \times 5 = 0$
3. <u> </u>	0.0%		Column Totals: 130 (A) 281 (B)
3. <u> </u>			
	0.0%		Prevalence Index = B/A = 2-162
	0.0%		Hydrophytic Vegetation Indicators:
	0.0%	-	
			1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 21 20% of Total Cover: 8.4 42 =	Total Cove		✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	76.9%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Ilex glabra 10	15.4%	FACW	
			Indicators of hydric soil and wetland hydrology must
	7.7%	FAC	be present, unless disturbed or problematic.
4	0.0%		
50	0.0%		Definition of Vegetation Strata:
3	0.0%		Tree - Woody plants, excluding woody vines,
	Total Cove		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 30 m			
1 Lycopodiella alopecuroides 1	100.0%	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2.	0.0%		than 3 in. (7.6 cm) DBH.
3. 0	0.0%		
4. 0	0.0%	-	Sapling/Shrub - Woody plants, excluding vines, less
_ ``			than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0.0%		
6. <u>0</u> , L	0.0%		Shrub - Woody plants, excluding woody vines,
7	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
8	0.0%_		
9.	0.0%		Herb - All herbaceous (non-woody) plants, including
0	0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
10	0.0%		3 ft (1 m) in height.
2. 0	0.0%	A. 14. 14. 1	
	Total Cover	-	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 m			
Vitis rotundifolia 2	100.0%	FAC.	
	0.0%		
3			
	」 (0.0%		Hydrophytic
5	0.0%		Vegetation
50% of Total Cover: 1 20% of Total Cover: 0.4 2 = 1	Total Cover		Present? Yes  No

_	•	

Depth	iption: (Descr	ibe to the d	lepth needed to document the indicator o	or confirm the	absence of indicators.)
		atrix	Redox Features	1	
(inches) 0-6	Color (mo	3/2 100	% Color (moist) % Typ	e Loc²	Texture Remarks Sandy Loam
			9 90 9 60 90 9790 1 42 20 482		A MARIE CONTRACTOR CON
6-24	10YR	5/6 100			Sandy Loam
		epletion. RM	=Reduced Matrix, CS=Covered or Coated Sand	d Grains <sup>2</sup> Loca	tion: PL=Pore Lining. M=Matrix
lydric Soil I					Indicators for Problematic Hydric Solls <sup>3</sup> :
Histosol (A	•		Polyvalue Below Surface (S8) (		1 cm Muck (A9) (LRR O)
_ ''	pedon (A2)		☐ Thin Dark Surface (S9) (LRR S,		2 cm Muck (A10) (LRR S)
Black Histi			Loamy Mucky Mineral (F1) (LRi	R O)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Matrix (F3)		Anomalous Bright Loamy Soils (F20) (MLRA 153B)
_	odies (A6) (LRR		Redox Dark Surface (F6)		Red Parent Material (TF2)
5 cm Muck	ky Mineral (A7)	(LRR P, T, U	Depleted Dark Surface (F7)		☐ Very Shallow Dark Surface (TF12)
Muck Pres	ence (A8) (LRR	U)	Redox Depressions (F8)		Other (Explain in Remarks)
1 cm Mucl	k (A9) (LRR P, T	)	☐ Marl (F10) (LRR U)		_
Depleted E	Below Dark Surf	ace (A11)	Depleted Ochric (F11) (MLRA 1	51)	
Thick Dark	Surface (A12)		☐ Iron-Manganese Masses (F12)	(LRR O, P, T)	
Coast Prair	rie Redox (A16)	(MLRA 150/	Umbric Surface (F13) (LRR P, 7	ັ, U)	
Sandy Muc	ck Mineral (S1)	(LRR O, S)	Delta Ochric (F17) (MLRA 151)		
	yed Matrix (S4)		Reduced Vertic (F18) (MLRA 15		<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red			☐ Piedmont Floodplain Soils (F19)		wetland hydrology must be present, unless disturbed or problematic.
Stripped M			Anomalous Bright Loamy Soils		
	ice (S7) (LRR P,	S T 11)	Allottalous Bright Loanly Sons (	(1 20) (MERON 143	sa, 1550, 1550)
	ice (37) (LINK F,	3, 1, 0)			
	yer (if observ	ed):	<del></del>		
estrictive La					
estrictive La Type:	Depth (inches):				Hydric Soil Present? Yes O No 🏵
Туре:	(65)1			+	<u></u>
Type: Depth (inch					
Type: Depth (inch emarks:		ad.			
Type: Depth (inch emarks:	cators observe	ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch		ed.			
Type: Depth (inch		ed.			
Type: Depth (inch		ed.			
Type: Depth (inch		ed.			
Type: Depth (inch emarks:		ed.			
Type: Depth (inch emarks:		ed.			

Troject/ ofter resulting 2/200 / to a resulting substantial	City/County: Waveland - Hancock Sampling Date: 10-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 3A
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 20 T 7s R 16 W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR T Lat.:	30° 25′ 1.581" N Long.: 89° 37′ 10.657" W Datum: NAD83
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: N/A
	6 0
Are climatic/hydrologic conditions on the site typical for this time of yea	(2. 11.) 5. [
	y disturbed? Are "Normal Circumstances" present? Yes   No
	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	Ye the Consided from
Hydric Soil Present? Yes O No	Is the Sampled Area  Yes No   No
Wetland Hydrology Present? Yes No   No	within a Wetland?
Remarks:	00 to 200 courth of forcolling in NE part of AOI
Upland terrace approximately 50-60- feet frm wet transitional area 2	ou to 300 south or renceine in NE part of AOI
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13	3) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15	) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide C	Odor (C1) Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Oxidized Rhizosphe	eres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduct	ed Iron (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reduct	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	(C7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in R	emarks) 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:	
Surface Water Present? Yes No   Depth (inches):	
Water Table Present? Yes No   Depth (inches):	
L Span (manas)	Wetland Hydrology Present? Yes O No 💿
Saturation Present? Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if available:
Remarks:	
No observed evidence of hydrology indicators.	
	j

(Disk size)		Rel.Strat.		Dominance Test worksheet:	
Tree Stratum (Plot size:	% Cover		Status	Number of Dominant Species	
1. Pinus elliottii	25	78.1%	FACW	That are OBL, FACW, or FAC: 4 (A)	
2		0.0%		Total Number of Dominant	
3. Nyssa sylvatica	5_	15.6%	FAC	Species Across All Strata: 4 (B)	
4 Magnolia grandiflora	2	6.3%	FAC		
5		0.0%	MD 4 MM M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Percent of dominant Species That Are ORL FACW or FAC: 100.0% (A/B)	
6		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)	
7	0	0.0%		Prevalence Index worksheet:	
8.	0	0.0%		Total % Cover of: Multiply by:	
50% of Total Cover: 16 20% of Total Cover: 6.4	32	= Total Cov	er	OBL species 0 x 1 = 0	
	**	_ 10tal 001			
Sapling or Sapling/Shrub Stratum (Plot size:			=1.511		
1. Pinus elliottii		76.9%		FAC species $17 \times 3 = 51$	
Magnolia virginiana		12.8%	-	FACU species $\frac{2}{x}$ $4 = \frac{8}{x}$	
3. Nyssa sylvatica	2	5.1%	FAC	UPL species $0 \times 5 = 0$	
4. Quercus falcata	_1_	2.6%	FACU	Column Totals: 134 (A) 289 (B)	
5	1	2.6%		Drawnlance Taday D/A 2 157	
6	0	0.0%		Prevalence Index = B/A = 2.157	
7	0	0.0%	721 12	Hydrophytic Vegetation Indicators:	
8	0	0.0%		✓ 1 - Rapid Test for Hydrophytic Vegetation	
50% of Total Cover: 19.5 20% of Total Cover: 7.8	39 :	= Total Cov	ar .		
for the state of t		. Juli COVI		✓ 2 - Dominance Test is > 50%	
Shrub Stratum (Plot size:)			13550	✓ 3 - Prevalence Index is ≤3.0 ¹	
1 Ilex coriacea	50	84.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2. Ilex vomitoria	5	8.5%	FAC		
3. Ilex opaca	3	5.1%	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4. Quercus falcata	-	1.7%	FACU	be present, unless disturbed or problematic.	
5.	0	0.0%		Definition of Vegetation Strata:	
6.	0	0.0%	-1.3	Tree - Woody plants, excluding woody vines,	
50% of Total Cover: 29.5 20% of Total Cover: 11.8	59	= Total Cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Herb Stratum (Plot size:)	-			(1.5 dily di larger in diameter di breadt holgin (bbit).	
	-	400.007	FACU	Sapling - Woody plants, excluding woody vines,	
1, Ilex coriacea		100.0%	FACW	approximately 20 ft (6 m) or more in height and less	
2.		0.0%		than 3 in. (7.6 cm) DBH.	
3	0	0.0%			
4	.0	0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.	
5	0	0.0%		than 5 in. DBH and greater than 3.20 it (1111) tail.	
6.	0	0.0%		Shrub - Woody plants, excluding woody vines,	
7.	0	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.	
8	0	0.0%			
9.		0.0%	• • • • • • • • • • • • • • • • • • • •	Herb - All herbaceous (non-woody) plants, including	
10,		0.0%		herbaceous vines, regardless of size, and woody	
		0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.	
11 12.			······································	water and are considered	
		6.0%		Woody vine - All woody vines, regardless of height.	
50% of Total Cover: 2.5 20% of Total Cover: 1	5 =	= Total Cove	ar l	Troody fillo 7 in moody fillod, regardless of fleight.	
Woody Vine Stratum (Plot size:)					
1.	0	0.0%			
2	0	0.0%			
	_	0.0%			
		0.0%			
-		_		Hydrophytic	
5	0	☐ 0.0%		Vegetation	
50% of Total Cover: 0 20% of Total Cover: 0	0 =	Total Cove	r	Present? Yes V NO V	
Remarks: (If observed, list morphological adaptations below).					
*Indicator suffix = National status or professional decision assigned because Re	egional status r	not defined by F	ws.		

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SOIL			Sampling Point: Up - 3A
Profile Descr	ription: (Describe to the depth	needed to document the indicator or confirm the	e absence of Indicators.)
Depth	Matrix	Redox Features	
(inches)	Color (moist) %	Color (moist) % Type 1 Loc2	Texture Remarks
0-3	10YR 4/2		
3-10	10YR 5/3		
10-20	10YR 6/4		
10 20	10110 0,1		
		<u> </u>	
		A State	-
Type: C=Cond	rentration D=Depletion PM=Ped	uced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Loc	cation: PI =Pore Lining M=Matrix
Hydric Soil I		aced Platfix, CS-covered of Coaled Sain Grains - Loc	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A		Polyvalue Below Surface (S8) (LRR S, T, U)	
_ `	pedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Black Histi		Loamy Mucky Mineral (F1) (LRR O)	2 cm Muck (A10) (LRR S)
_	Sulfide (A4)	Loamy Gleyed Matrix (F2)	Reduced Vertic (F18) (outside MLRA 150A,B)
	Layers (A5)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
	odies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	ky Mineral (A7) (LRR P, T, U)	Depleted Dark Surface (F7)	Red Parent Material (TF2)
	sence (A8) (LRR U)	Redox Depressions (F8)	☐ Very Shallow Dark Surface (TF12) ☐
_	k (A9) (LRR P, T)	Mari (F10) (LRR U)	Uther (Explain in Remarks)
	Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	
	Surface (A12)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	
	rie Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)	
_	ck Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	
_ `	yed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red		Piedmont Floodplain Soils (F19) (MLRA 149A)	wetland hydrology must be present, unless disturbed or problematic.
Stripped M		Anomalous Bright Loamy Soils (F20) (MLRA 1-	
	ace (S7) (LRR P, S, T, U)	Midnigious bright Edainy Solis (120) (FIECA 1	T3A, 133C, 133D)
	(, (, ., ., .,		
	yer (if observed):		
Type:	una)ı		Hydric Soil Present? Yes No •
Depth (inch	les):		
Remarks:			
ight orange-	-brown mottling observed in 6	-20 inch intervals.	

B	City/County: Waveland	d - Hancock	Sampling Date:	10.04.16	
Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion		es 'N		10-Oct-16	
Applicant/Owner: NASA	State: N		Point: Up - 3B		
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Ra	ange: S 20 T	7s R 16		
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): concav	e <b>Slope:</b> 0	.0 % / 0.0°	
Subregion (LRR or MLRA): LRR T Lat:	30° 25' 1.450" N	Long.: 89° 37' 9.0	611" W Date	m: NAD83	
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes			sification: N/A		
	ar? Yes No				
Are climatic/hydrologic conditions on the site typical for this time of year		(21.110) 2.4	(6)	No O	
		"Normal Circumstances	present	NO C	
Are Vegetation . , Soil . , or Hydrology . naturally ;	problematic? (If n	needed, explain any ans	wers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locati	ons, transects, im	portant features,	etc.	
Hydrophytic Vegetation Present? Yes   ● No ○	Is the Sampled	i Area			
Hydric Soil Present? Yes   No		Voc O No G	0)		
Wetland Hydrology Present? Yes O No	within a Wetla	nd?			
Remarks:					
Remarks.					
HYDROLOGY					
Wetland Hydrology Indicators:	-	Secondary Indi	icators (minimum of 2 req	uired)	
Primary Indicators (minimum of one required; check all that apply)			il Cracks (B6)	uned)	
☐ Surface Water (A1) ☐ Aquatic Fauna (B1			egetated Concave Surface	(B8)	
High Water Table (A2)  Marl Deposits (B1.	•		Drainage Patterns (B10)		
Saturation (A3) Hydrogen Sulfide			Moss Trim Lines (B16)		
	heres along Living Roots (C3	_	Dry Season Water Table (C2)		
Sediment Deposits (B2)	ced Iron (C4)	Crayfish Bu	irrows (C8)		
☐ Drift Deposits (B3) ☐ Recent Iron Reduc	ction in Tilled Soils (C6)	Saturation \	Visible on Aerial Imagery	(C9)	
Algal Mat or Crust (B4)	e (C7)	Geomorphic	c Position (D2)		
☐ Iron Deposits (B5) ☐ Other (Explain in I	Remarks)	Shallow Aqu	uitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	il Test (D5)		
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)		
Field Observations:			<u> </u>		
Surface Water Present? Yes No Depth (inches):					
Water Table Present? Yes No Depth (inches):			0 0	.	
Last the Breeds	Wetla	and Hydrology Present?	Yes 🔾 No 🖲	'	
	<u>'</u>				
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections)	i, if available:			
Remarks:					
				I	
				I	

ee Stratum (Plot size:)	% Cover		d.Strat. Cover	Indicator Status	Dominance Test worksheet:
Pinus elliottii	Y X	<b>V</b>	71.4%		Number of Dominant Species
	25			FACW	That are OBL, FACW, or FAC: 9 (A)
Magnolia virginiana	10		28.6%	FACW	Total Number of Dominant
	0	H	0.0%		Species Across All Strata: 9 (B)
		H,	0.0%		
***	0	Ш,	0.0%	• • •	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
		Ш	0.0%		That Are ODE, TACVY, OF TAC.
1	0		0.0%		Prevalence Index worksheet:
	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 17.5 20% of Total Cover: 7	35	= To	tal Cove	r	OBL species 7 x 1 = 7
pling or Sapling/Shrub Stratum (Plot size:					FACW species 79 x 2 =158
Name alliable	r	<b>V</b>	50.0%	FACW	FAC species 2 x 3 = 6
Transfilm and a second			30.0%	FACW	
Magnolla virginiana Nyssa sylvatica	2		20.0%	FAC	
				FAC	UPL species $0 \times 5 = 0$
		H	0.0%		Column Totals: 88 (A) 171 (B)
		Η.	0.0%		Prevalence Index = B/A = 1.943
		Щ.	0.0%	-	
		닏.	0.0%		Hydrophytic Vegetation Indicators:
	0	$\sqcup$	0.0%		1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 5 20% of Total Cover: 2	10 :	= To	tal Cover	•	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size:					✓ 3 - Prevalence Index is ≤3.0 ¹
	25	<b>V</b>	71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Tiex coriacea  Cyrilla racemiflora	-		28.6%	FACW	Problematic nytrophytic vegetation " (Explain)
			0.0%	TACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
*·	-				be present, unless disturbed or problematic.
-		Η.	0.0%		Definition of Vacantains Streets
	<u>,</u> 0	۲,	0.0%	(*)	Definition of Vegetation Strata:
	0	Ц,	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 17.5 20% of Total Cover: 7  Prb Stratum (Plot size: )	35 =	= To	tal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
Lycopodiella alopecuroides	5	<b>V</b>	71.4%	OBL	Sapling - Woody plants, excluding woody vines,
Woodwardia areolata		<b>V</b>	28.6%	OBL	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			0.0%		than o iii (110 only 551).
	0	Ħ.	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
		Η-		-	than 3 in. DBH and greater than 3.28 ft (1m) tali.
		片	0.0%		
5	0	님-	0.0%		Shrub - Woody plants, excluding woody vines,
·		님.	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
		닏.	0.0%		Herb - All herbaceous (non-woody) plants, including
	.0	Ц.	0.0%		herbaceous vines, regardless of size, and woody
	0		0.0%		plants, except woody vines, less than approximately
	0		0.0%		3 ft (1 m) in height.
	0		0.0%		
% of Total Cover: 3.5 20% of Total Cover: 1.4	7 =	: Tot	tal Cover		Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot size: )					
Smilax laurifolia	4		100.0%	EACW,	
		-		LWCAA	
E CONTRACTOR WAS A STATE OF THE		Η-	0.0%	-	
			0.0%		
		Ш.	0.0%		Hudranhutic
	0		0.0%		Hydrophytic Vegetation
	1 =	Tot	al Cover		Present? Yes   No
% of Total Cover: 0.5 20% of Total Cover: 0.2					

Color (moist)   %   Color (moist)   %   Color (moist)   %   Type   Loc   Texture   Remarks		ription: (Describe to	the <b>dep</b> th n	eeded to docume	nt the indi	icator or co	infirm the	absence of indicato	ors.)	
0-3 10YR 3/1 100   Sandy Loam	Depth	Matrix		F	tedox Feat					
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains  To Reduced Very Sand Sand Sand Sand Sand Sand Sand Sand				Color (moist)	%	Type 1	Loc2		Remarks	
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains alocation: PL=Pore Lining. M=Matrix  **Indicators for Problematic Hydric Soils**:    Histosol (A1)	188 Tal. 11			10VD 7/3		-	M		Very fine grained	
Nydric Soil Indicators:    Histosol (A1)	3-12	101K 3/2	- 33	10TK 7/3			14	Salluy Loalii		
Indicators:    Histosol (A1)		0	-		30.7	=/==		) <del>),</del>	*	
Addric Soil Indicators:  Histosol (A1)  Histosol (A2)  Thin Dark Surface (S8) (LRR S, T, U)  Histo Epipedon (A2)  Thin Dark Surface (S9) (LRR S, T, U)  Black Histoc (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Depleted Matrix (F3)  Muck Presence (A8) (LRR U)  Depleted Dark Surface (F7)  Muck Presence (A8) (LRR U)  Depleted Below Dark Surface (A11)  Depleted Orbric (F11) (MLRA 151)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR P, S)  Delate Orbric (F13) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR P, S)  Delate Orbric (F13) (MLRA 150B)  Reduced Vertic (F18) (outside MLRA 150A,B)  Reduced Vertic (F18) (outside MLRA 150A,B)  Reduced Vertic (F18) (outside MLRA 150A,B)  Piedmont Floodplain Soils (F19) (LRR P, F, T)  Anomalous Bright Loamy Soils (F20) (MLRA 153B)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  Thick Dark Surface (A12)  Iron-Manganese Masses (F12) (LRR P, F, T)  Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Park Surface (S7) (LRR P, S, T, U)  Hydric Soil Present? Yes No		-						-		
Nydric Soil Indicators:    Histosol (A1)										
Indicators:    Histosol (A1)						7.0				
Indicators:    Histosol (A1)	Type: C=Cond	centration. D≕Depletior	n. RM <b>≂Re</b> duc	ed Matrix. CS=Cove	ered or Coat	ed Sand Gra	nins <sup>2</sup> Loca	tion: PL=Pore Lining	. M=Matrix	
Histosol (A1)										
Black Histic (A3)	Histosol (A	A1)		Polyvalue B	elow Surfac	e (S8) (LRR	S, T, U)		<del>-</del>	
Hydrogen Sulfide (A4)    Loamy Gleyed Matrix (F2)   Piedmont Floodplain Soils (F19) (LRR P, S, T)	Histic Epip	oedon (A2)		Thin Dark S	urface (S9)	(LRR S, T, U	J)	2 cm Muck	(A10) (LRR S)	
Stratified Layers (A5)  Depleted Matrix (F3)  Anomalous Bright Loamy Soils (F20) (MLRA 1538)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Red Parent Material (TF2)  Muck Presence (A8) (LRR U)  Redox Depressions (F8)  Other (Explain in Remarks)  Thick Dark Surface (A11)  Depleted Below Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Deita Ochric (F17) (MLRA 150B)  Reduced Vertic (F18) (MLRA 150B)  Stratified Layers (A5)  Depleted Matrix (S6)  Depleted Dark Surface (F7)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Oth	_			Loamy Muc	ky Mineral (	F1) (LRR O)		Reduced Ve	rtic (F18) (outside MLRA 150A,B)	
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) S cm Mucky Mineral (A7) (LRR P, T, U) Pepleted Dark Surface (F7) Depleted Dark Surface (F8)  I cm Muck (A9) (LRR P, T) Redox Depressions (F8) Other (Explain in Remarks)  I cm Muck (A9) (LRR P, T) Redox Depressions (F8) Other (Explain in Remarks)  Thick Dark Surface (A11) Sandy Muck Mineral (S1) (LRR O, S) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):  Hydric Soil Present? Yes No	Hydrogen	Sulfide (A4)		Loamy Gley	ed Matrix (F	<del>-</del> 2)		Piedmont Fl	oodplain Soils (F19) (LRR P, S, T)	
S cm Mucky Mineral (A7) (LRR P, T, U)	Stratified I	Layers (A5)		Depleted M	atrix (F3)					
5 cm Mucky Mineral (A7) (LRR P, T, U)	Organic Bo	odies (A6) (LRR P, T, U	))	Redox Dark	Surface (F6	ō)				
Muck Presence (A8) (LRR U)  1 cm Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Redox Depressions (F8)  Other (Explain in Remarks)  In Muck (A9) (LRR P, T)  Other (Explain in Remarks)  In Muck (A9) (LRR P, T)  Other (Explain in Remarks)  In Muck (A15)  In Other (Explain in Remarks)  In Muck (A15)  In Other (Explain in Remarks)  In Muck (A15)  In Other (Explain in Remarks)  In Other (Explain in Remarks)  In Muck (A15)  In Other (Explain in Remarks)  In Other	_ 5 cm Mucl	ky Mineral (A7) (LRR P,	, T, U)	Depleted Da	ark Surface	(F7)				
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck 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)  Sestrictive Layer (if observed): Type: Depth (inches):  Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Umbric Surface (F13) (LRR P, T, U)  Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Wetland hydrology must be present, unless disturbed or problematic.  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Pestrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes No	Muck Pres	sence (A8) (LRR U)		Redox Depr	essions (F8	)				
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)  Sandy Muck 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)  Park Surface (S7) (LRR P, S, T, U)  Depth (inches):  Hydric Soil Present?  Yes  No	1 cm Muck	k (A9) (LRR P, T)			•	•		□ Other (Expe	all III Remarks/	
Thick Dark Surface (A12)	Depleted F	Below Dark Surface (A1	11)			MLRA 151)				
Coast Prairie Redox (A16) (MLRA 150A)  Sandy Muck 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)  Park Surface (S7) (LRR P, S, T, U)	Thick Dark	k Surface (A12)					1 (), P. T)			
Sandy Muck Mineral (S1) (LRR O, S)  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)  Participle Layer (if observed):  Type:  Depth (inches):  Type:  Depth (inches):	_	• •	(150A)							
Sandy Gleyed Matrix (S4)  Reduced Vertic (F18) (MLRA 150A, 150B)  Reduced Vertic (F18) (MLRA 150A, 150B)  Reduced Vertic (F18) (MLRA 150A, 150B)  Reduced Vertic (F18) (MLRA 149A)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Park Surface (S7) (LRR P, S, T, U)  Park Surface (S7) (LRR P, S, T, U)  Pestrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	_									
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic.  Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  estrictive Layer (if observed):  Type:  Depth (inches): Hydric Soil Present? Yes No	_			_		•	1500)			
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (if observed):  Type:  Depth (inches): Hydric Soil Present? Yes No	_						-			
Dark Surface (S7) (LRR P, S, T, U)  estrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No									inless disturbed or problematic.	
estrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes  No  No			n	☐ Anomaious	Bright Loam	y 50115 (F20	) (MLRA 145	3A, 153C, 153D)		
Type:  Depth (inches):  Hydric Soil Present? Yes  No  No	■ Dark Suna	ice (5/) (LKR P, 5, 1, 0	")							
Depth (inches): Hydric Soil Present? Yes  No								•		
pepai (maisos).		yer (if observed):							0 0	
emarks:	estrictive La	nyer (if observed):						Hydric Soil Prese	ent? Yes 🖭 No 🔾	
	estrictive La				1.70					
	estrictive La Type: Depth (inch				1. p. b					
	estrictive La Type: Depth (inch					· · · · · · · · · · · · · · · · · · ·			<del></del>	
	estrictive La Type: Depth (inch									
	estrictive La Type: Depth (inch				- 17-18-					
	estrictive La Type: Depth (inch									
	estrictive La Type: Depth (inch				10.0					
	estrictive La Type: Depth (inch				- 44 t					
	estrictive La				- 44 t					
	estrictive La Type: Depth (inch									
	estrictive La Type: Depth (inch									
	estrictive La Type: Depth (inch									
	estrictive La Type: Depth (inch									

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	ity/County: Waveland - Hancock Sampling Date: 10-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 4
	Section, Township, Range: S 20 T 7s R 16 W
	ocal relief (concave, convex, none): Slope: 0.0 % / 0.0 °
And A MANUAL MANUAL THREE NO. 1 C. A. 1 C. A.	0° 25' 3.162" N Long.: 89° 36' 56.200" W Datum: NAD83
	NWI classification: N/A
Soil Map Unit Name: Atmore	
Are climatic/hydrologic conditions on the site typical for this time of year?	
Are Vegetation , Soil , or Hydrology isignificantly of	Are normal entallistations present:
Are Vegetation . , Soil . , or Hydrology . naturally prol	blematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing samp	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ● No ○	Is the Sampled Area
Hydric Soil Present? Yes ○ No ⑨	within a Wetland? Yes O No 💿
Wetland Hydrology Present? Yes ○ No   No	withing wedgings
Remarks:	
Transitional area approximately 150-200 feet south of North fenceline.	Begin picking up Live Oaks and S. Red Oaks.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2)  Marl Deposits (B15) (	
Saturation (A3) Hydrogen Sulfide Odd	
	es along Living Roots (C3) Dry Season Water Table (C2)
☐ Sediment Deposits (B2) ☐ Presence of Reduced ☐ Drift Deposits (B3) ☐ Recent Iron Reduction	
Algal Mat or Crust (B4) Thin Muck Surface (C	
Iron Deposits (B5)	· · · · · · · · · · · · · · · · · · ·
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 No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present?	Wetland Hydrology Present? Yes ○ No ④
( Interest of the control of the con	
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	

ree Stratum (Plot size: 30 m )	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
Pinus elliottii		_		Number of Dominant Species
Ouercus falcata	10 2		FACW	That are OBL, FACW, or FAC: 4 (A)
0		15.4%	FACU	Total Number of Dominant
Quercus virginiana		□ 7.7%	FACU	Species Across All Strata: 4 (B)
	0	0.0%		
				Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
	0	0.0%		That Are ODL, TACW, OF TAC.
	.0	0.0%	15	Prevalence Index worksheet:
	0	0.0%		Total % Cover of: Multiply by
50% of Total Cover: 6.5 20% of Total Cover: 2.6	13	= Total Cove	r	OBL species 5 x 1 = 5
apling or Sapling/Shrub Stratum (Plot size: 30 m				FACW species 86 x 2 = 172
Prof (Id. A.) D		78.1%	FACW	
12 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
Pinus palustris		15.6%	FACU	FACU species $10 \times 4 = 40$
Quercus virginiana		6.3%	FACU	UPL species 0 x 5 = 0
F-17-17 - 17-1	0	0.0%		Column Totals: 101 (A) 217 (B)
	0	0.0%		Brownlence Index — P/A — 2 140
in.	0	0.0%		Prevalence Index = B/A = 2.149
	D	0.0%		Hydrophytic Vegetation Indicators:
B NEW TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE TO	0	0.0%	-0.00	✓ 1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 16 20% of Total Cover: 6.4	32 :	= Total Cove		
	- 54	- 10141 00141		2 - Dominance Test is > 50%
rrub Stratum (Plot size: 30 m )		_		✓ 3 - Prevalence Index is ≤3.0 ¹
Ilex coriacea	50	100.0%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	0	0.0%		
	0	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	0	0.0%		be present, unless disturbed or problematic.
1)	0	0.0%		Definition of Vegetation Strata:
	0	0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 25 20% of Total Cover: 10		= Total Cover		approximately 20 ft (6 m) or more in height and 3 in.
O/8 0; Total Cover. 23 20/8 01 Total Cover. 10	30	- Total Cover		(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )				
Lycopodiella alopecuroides	5	<b>100.0%</b>	OBL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
	0	0.0%		than 3 in. (7.6 cm) DBH.
	0	0.0%		
	0	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
•		0.0%		
*	0			Shrub - Woody plants, excluding woody vines,
**********	0	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
· · · · · · · · · · · · · · · · · · ·		0.0%		Hoth All harbonous (non-woods) plants insteading
		0.0%		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1 ·	0	0.0%		plants, except woody vines, less than approximately
	0	0.0%		3 ft (1 m) in height.
Walter and Control	0	0.0%		
0% of Total Cover: 2.5 20% of Total Cover: 1	5 =	Total Cover		Woody vine - All woody vines, regardless of height.
- · ·	-		- !	
oody Vine Stratum (Plot size: 30 m )				
Smilax laurifolia	_ 1	100.0%	FACW	
	0	0.0%		
	. 0	0.0%		
	0	0.0%		
	0	0.0%		Hydrophytic
	1 =	Total Cover		Vegetation Present?  Yes  No
0% of Total Cover: 0.5 20% of T <b>ota</b> l Cover: 0.2				

rofile Descr	ription: (Des	cribe to	the denth	needed to document the indi	ator or cor	ifirm the ab	sence of indicators.)	
		Matrix	Tio achei	Redox Feat				
Depth (inches)	Color (		%	Color (moist) %	Type 1	Loc2	Texture	Remarks
0-4	10YR	3/3	100					
4-16	10YR	5/6	100					
. 20		3,0						
								-
ype: C=Con	centration. D	=Depletio	n. R <b>M=R</b> edu	uced Matrix, CS=Covered or Coate	ed Sand Grai	ns <sup>2</sup> Loc <b>atio</b>	n: PL=Pore Lining, M=N	latrix
lydric Soil I				_			Indicators for Probl	ematic Hydric Soils <sup>3</sup> :
∐ Histosof (	-			Polyvalue Below Surface	(S8) (LRR S	, T, U)	1 cm Muck (A9) (	LRR O)
	pedon (A2)			Thin Dark Surface (S9)	LRR S, T, U	1	2 cm Muck (A10)	(LRR S)
_ Black Hist				Loamy Mucky Mineral (F	1) (LRR O)		Reduced Vertic (F	18) (outside MLRA 150A,B)
_	Sulfide (A4)			Loamy Gleyed Matrix (F	2)		Piedmont Floodpla	ain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)			Depleted Matrix (F3)				Loamy Soils (F20) (MLRA 153B)
Organic B	odies (A6) (LI	RR P, T, L	l)	Redox Dark Surface (F6	)		Red Parent Materi	
5 cm Muc	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark Surface (	F7)		☐ Very Shallow Dark	• •
Muck Pres	sence (A8) (Li	RR U)		Redox Depressions (F8)			Other (Explain in i	
1 cm Muc	k (A9) (LRR P	r, T)		Marl (F10) (LRR U)			C Odici (Explain III	(Cinario)
Depleted	Below Dark S	urface (A:	11)	Depleted Ochric (F11) (I	/LRA 151)			
Thick Darl	k Surface (A1:	2)		☐ Iron-Manganese Masses		O. P. T)		
_	irie Redox (A1	-	150A)	Umbric Surface (F13) (L		<b>~</b> [.,.,.)		
_	ck Mineral (S:	, ,		Delta Ochric (F17) (MLR				
_	yed Matrix (S		, -,	_		EUD)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Rec		•,		Reduced Vertic (F18) (M				ydrology must be present,
7				Piedmont Floodplain Soi		-		disturbed or problematic.
- ''	/latrix (S6)	D.C.T.I	13	Anomalous Bright Loam	/ Solls (F20)	(MLKA 149A	, 153C, 153D)	
J Dark Suna	ace (S7) (LRR	P, S, 1, L	J)					
	yer (if obse	rved):						
Type:							Hydric Soil Present?	Yes O No 💿
Depth (inch	nes):						, and bod riescile	163 C 110 C
emarks:								

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Wavela	,, , , , , , ,	Sampling Date:	11-Oct-16
Applicant/Owner: NASA			7 W	
Investigator(s): Lars Larson, Randy Ellis	Section, Township,	A	T 7s R 16	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave,	convex, none): none	Slope: 2,	0 % / 1.1°
Subregion (LRR or MLRA): LRR T Lat.:	30° 24' 42.587" N	Long.: 89° 36'	41.655" W Datur	n: NAD83
Soil Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5% slopes		NWI d	assification: N/A	
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes 💿 N	o (If no, expla	in in Remarks.)	
Are Vegetation , Soil , or Hydrology significan	ntly disturbed? Are	e "Normal Circumstand	ces" present? Yes	No O
		needed, explain any a		
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point loca	tions, transects, i	mportant features,	etc.
Hydrophytic Vegetation Present? Yes ⊙ No ○	Is the Sample	nd Area		
Hydric Soil Present? Yes O No	1	Vec O No	•	
Wetland Hydrology Present? Yes ○ No ⑤	within a Wet	land?	O	
Remarks:				
HYDROLOGY			_	
Wetland Hydrology Indicators:		Secondary In	ndicators (minimum of 2 requ	ired)
Primary Indicators (minimum of one required; check all that apply)		Surface !	Soil Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B	-		Vegetated Concave Surface (	(B8)
High Water Table (A2) Marl Deposits (B)			Patterns (B10)	
☐ Saturation (A3) ☐ Hydrogen Sulfide	* *		m Lines (B16)	
	heres along Living Roots (		on Water Table (C2)	
Sediment Deposits (B2)  Presence of Redu  Result Visa Part	• •		Burrows (C8)	CO)
	uction in Tilled Soils (C6)	_	in Visible on Aerial Imagery (Cabic Resition (D2)	(9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac			ohic Position (D2) Aquitard (D3)	
☐ Iron Deposits (B5) ☐ Other (Explain in Inundation Visible on Aerial Imagery (B7)	Remarks)		tral Test (D5)	
Water-Stained Leaves (B9)			m moss (D8) (LRR T, U)	
			III 111035 (DO) (ERK 1, 0)	
Field Observations:  Surface Water Present? Yes No Depth (inches):				
0 0				
		tland Hydrology Presei	nt? Yes 🔾 No 💿	
Saturation Present? Yes No Depth (inches):				
Describe Recorded Data (stream gauge, monitoring well, aerial phote Remarks:	tos, previous inspection	is), if available:	9	
				-
				- 1
				I

Tree Stratum (Plot size: 30 m )	Absolute	e Re	el.Strat. Cover	Indicator Status	
1 Pinus elliottii	20	V	66,7%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2. Nyssa sylvatica	5		16.7%	FAC	The side obly Thorn, of their
O Outstand of the Control of the Con			16.7%	FAC	Total Number of Dominant
	0	H			Species Across All Strata: 3 (B)
	_	H.	0.0%	FACW	Percent of dominant Species
5			0.0%	- 100	That Are OBL, FACW, or FAC: 100.0% (A/B)
6.	_ 0	Ц	0.0%		111007110 002471710177 01 11101
7	0	Ц,	0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 15 20% of Total Cover: 6	30	= To	tal Cove		OBL species $0 \times 1 = 0$
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 105 x 2 = 210
		<b>V</b>	69.8%	FACW	FAC species 30 x 3 = 90
0 0				-	
		<b> -</b>	18.6%	FAC	FACU species $0$ $\times$ 4 = $0$
3. Magnolia virginiana			11.6%	FACW	UPL species $0 \times 5 =0$
4	0	Ш.	0.0%		Column Totals: 135 (A) 300 (B)
5	0	$\square$	0.0%		December 2 december 2 222
6	0		0.0%		Prevalence Index = B/A = 2.222
7			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		
					✓ 1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 21.5 20% of Total Cover: 8.6	43	= To	tal Cove	r !	✓ 2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is $\leq$ 3.0 $^1$
1 Ilex coriacea	50	<b>V</b>	83.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Ilex vomitoria	10		16.7%	FAC	
0			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
· ·		H			be present, unless disturbed or problematic.
4			0.0%		Definition of Manufaction Courts
5			0.0%		Definition of Vegetation Strata:
6	0	Ш,	0.0%		Tree - Woody plants, excluding woody vines,
50% of Total Cover:         30         20% of Total Cover:         12           Herb Stratum         (Plot size: 30 m )         )	60_	= Tol	tal Cove	'	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1	0		0.0%		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2.	0		0.0%		than 3 in. (7.6 cm) DBH.
3.	0	$\overline{\Box}$	0.0%		than o kin (1.0 on) DDI ii
4.	0	Π.	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
		-			than 3 in. DBH and greater than 3.28 ft (1m) tall.
5	0	$\vdash$	0.0%		
6,	0	Ц.	0.0%		Shrub - Woody plants, excluding woody vines,
7	0.	Щ"	0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
8,	0	$\Box$ _=	0.0%		
9	0		0.0%		Herb - All herbaceous (non-woody) plants, including
10.,	0		0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
	0		0.0%		3 ft (1 m) in height.
11 12	0	Ξ.	0.0%		
		Ц.			Woody vine - All woody vines, regardless of height.
50% of Total Cover: 0 20% of Total Cover: 0	0 :	= Tot	al Cover	`	Woody Ville - All Woody Villes, regardless of Height.
Woody Vine Stratum (Plot size: 30 m				l.	
A british a british br	2		100.0%	FAC	
1. VIDS FORMATIONS 2			0.0%		
		=		-	
3		H-	0.0%		
4	00	$\sqcup$	0.0%		Undrophytic
5	0	$\sqcup_{-}$	0.0%		Hydrophytic Vegetation
50% of Total Cover: 1 20% of Total Cover: 0.4	2 =	= Tot	al Cover		Present? Yes   No
Remarks: (If observed, list morphological adaptations below).  Heavy pine litter very little herbaceous layer.					

SOIL								Sa	mpling Point	t: Up-5
Profile Desc	ription: (De:	scribe to	the <b>dep</b> th	needed to document	the indic	ator or co	nfirm the a	absence of indicato	ors.)	-
Depth		Matrix		Rec	iox Featu					
(inches)	Color (	moist)_	%	Color (moist)	%	Type 1	Loc2	Texture		Remarks
0-6	10YR	3/3	100							1 2 41 1
6-16	10YR	5/4	100						some	mottling
-					-					, sound
		_	-				_	-		
				According to the second						
	ξ.,									
<sup>1</sup> Type: C=Con	centration. D	=Depletio	n. R <b>M=R</b> edu	uced Matrix, CS=Covere	d or Coate	d Sand Gra	ins <sup>2</sup> Locat	tion: PL=Pore Lining.	. M=Matrix	
Hydric Soil 1				_				Indicators for I	Problematic	Hydric Soils <sup>3</sup> :
Histosol (	•			Polyvalue Belo	w Surface	(S8) (LRR 9	S, T, U)	1 cm Muck (	A9) (LRR O)	
	pedon (A2)			☐ Thin Dark Surf			)	2 cm Muck (	(A10) (LRR S)	
☐ Black Hist				Loamy Mucky				Reduced Ver	rtic (F18) (out	side MLRA 150A,B)
	Sulfide (A4)			Loamy Gleyed		2)		Piedmont Flo	oodplain Soils	(F19) (LRR P, S, T)
	Layers (A5)			Depleted Matri	• /					Soils (F20) (MLRA 153B)
	Bodies (A6) (Li			Redox Dark Su				Red Parent I	Material (TF2)	
	cky Mineral (A sence (A8) (Li	, ,	, 1, 0)	☐ Depleted Dark	•	<del>-7)</del>		└─ Very Shalfow	v Dark Surface	(TF12)
	:k (A9) (LRR F	-		Redox Depress				U Other (Expla	in in Remarks	)
	Below Dark S		11)	☐ Marl (F10) (LR	-	4: D& 4E4\				
	k Surface (A1	•	11)	Depleted Ochr		-	0.0.70			
	irie Redox (Al	•	\ 150A)	☐ Iron-Manganes			0, P, 1)			
	ick Mineral (S:		-	Umbric Surface Delta Ochric (F						
_	yed Matrix (S		, 0,	Reduced Vertic		-	150B)			ohytic vegetation and
Sandy Re	-	7		☐ Piedmont Floor			•			/ must be present, d or problematic.
	Matrix (S6)							A, 153C, 153D)	mess discarde	a or problemate.
	ace (S7) (LRR	P, S, T, l	J)		J.1.C 200.11.7	505 (1.2.5)	(	, 1000, 1000,		
Restrictive La	ayer (if obse	rved):								
Туре:							-			0 0
Depth (incl	hes):							Hydric Soil Prese	nt? Yes	○ No
Remarks:										
No strong hyd	dric indictors	. Some	dark oran	ge mottling in lower	interval o	of soil colu	mn.			

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation Ci	ity/County: Waveland - Hancock Sampling Date: 11-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 6
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: 5 28 T 7 5 R 16 W
Landform (hillslope, terrace, etc.): Hillside Lo	ocal relief (concave, convex, none): CONVEX Slope: 3.0 % / 1.7°
	0° 24' 40.701" N Long.: 89° 36' 31.360" W Datum: NADB3
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly	× 8 11 0
Are Vegetation , Soil , or Hydrology naturally pro	
SUMMARY OF FINDINGS - Attach site map showing same	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	To the Campled Area
Hydric Soil Present? Yes O No 💿	Is the Sampled Area  Ves No   No   No
Wetland Hydrology Present? Yes O No •	within a Wetland? Yes VNO S
Remarks:	
Sideslope approximately 300 feet west of East Site Road (A. Jackson)	and 200-300 feet south of TS Creek.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (	(LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odd	or (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizosphere	es along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	Iron (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reductio	on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C	(7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Ren	narks) 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:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? Ves No Penth (inches):	Wetland Hydrology Present? Yes ○ No •
(includes capillary filities)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	***
	,

Tree Stratum (Plot size: 30 m )	Absolute		el.Strat. Cover	Indicator Status	Dominance Test worksheet:
		V			Number of Dominant Species
Pinus elilottii     Quercus nigra	., 15 10	V		FACW	That are OBL, FACW, or FAC: 8 (A)
3. Nyssa sylvatica				FAC FAC	Total Number of Dominant
A Oueseus termon	2_		7.1%		Species Across All Strata: 8 (B)
5.		Н	3.6%	FACW	Percent of dominant Species
_	0	H	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6.			0.0%		
7.			0.0%		Prevalence Index worksheet:
8.	0	Щ	0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 14 20% of Total Cover: 5.6	28	= Te	otal Cove	r	OBL species 0 x 1 = 0
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $52 \times 2 = 104$
1 Pinus elliottii	15_	<b>V</b>	48.4%	FACW	FAC species 38 x 3 = 114
2. Quercus nigra		<b>V</b>	32.3%	FAC	FACU species $0 \times 4 = 0$
3. Nyssa sylvatica			16.1%	FAC	UPL species 0 x 5 = 0
4. Ilex opaca			3.2%	FAC	or a specific
5.	0		0.0%		Column Totals: 90 (A) 218 (B)
6.	0	$\Box$	0.0%		Prevalence Index = B/A = 2,422
7.	0		0.0%	_	Hydrophytic Vegetation Indicators:
٥	0		0.0%		
	-1.9 p				1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 15.5 20% of Total Cover: 6.2	31	= To	otal Cove	•	2 - Dominance Test is > 50%
Shrub Stratum (Plot size: 30 m )					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
1 Ilex coriacea	15	<b>V</b>	71.4%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Ilex vomitoria	5	V	23.8%	FAC	
3. Persea borbonia	1		4.8%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1	_	$\overline{\Box}$	0.0%		be present, unless disturbed or problematic.
5.	C		0.0%		Definition of Vegetation Strata:
6	0	$\exists$	0.0%	(Participant)	Tree - Woody plants, excluding woody vines,
					approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 10.5 20% of Total Cover: 4.2	21	= 10	otal Cover		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 30 m )					
1 Arundinaria tecta	5	V	100.0%	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2	0		0.0%		than 3 in, (7.6 cm) DBH.
3.	0		0.0%		, ,
4.	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less
5.	0	$\Box$	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
6	0	$\Box$	0.0%	-	
7		H	0.0%	-	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
		H	0.0%		approximately 5 to 20 ft (1 to 6 ftl) iff height.
8		二	0.0%		Herb - All herbaceous (non-woody) plants, including
9					herbaceous vines, regardless of size, and woody
10		1	0.0%		plants, except woody vines, less than approximately
11		님	0.0%		3 ft (1 m) in height.
12	0	Ц	0.0%		NAZ-akirida Allamada U. S. S.C.
50% of Total Cover: 2.5 20% of Total Cover: 1	5 =	= To	tal Cover		Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 m					<u> </u>
1 Vitis rotundifolia	5	<b>V</b>	100.0%	FAC	
	4		0.0%		
2	n	$\exists$	0.0%	-	
		۲.			
4.		Η.	0.0%	-	Hydrophytic
5		L	0.0%		Vegetation
50% of Total Cover: 2.5 20% of Total Cover: 1	5 =	= To	tal Cover		Present? Yes No O
Remarks: (If observed, list morphological adaptations below).	_			•	
*Indicator suffix = National status or professional decision assigned because Re	ecional status r	not d	efined by FV	vs.	

COT	4

Sampling Point: Up - 6 Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture Remarks 0-6 10YR 3/2 6-22 10YR 5/6 100 Sandy Loam <sup>1</sup>Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils<sup>3</sup>: ☐ 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) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) ☐ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Lavers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Depleted Dark Surface (F7) ☐ Very Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) Redox Depressions (F8) Other (Explain in Remarks) 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 Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) <sup>3</sup>Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) wetland hydrology must be present, Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic. 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: Yes O No 💿 **Hydric Soil Present?** Depth (inches): Remarks: Soil becomes bright yellowish brown below 5 inches.

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hanco	- II Out 10
Applicant/Owner: NASA	State: MS	Sampling Point: Up - 7
Investigator(s): Lars Larson. Randy Ellis	Section, Township, Range: S	28 T 7s R 16W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, n	one): none
Subregion (LRR or MLRA): LRR T Lat:	30° 24' 46.148" N Long	3.: 89° 36' 26.206" W <b>Datum</b> : NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of ye	ar? Yes   No	(If no, explain in Remarks.)
		Circumstances" present? Yes No O
		explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations, tr	ransects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	You the Compiled Associ	
Hydric Soil Present? Yes   No	Is the Sampled Area	Yes O No 💿
Wetland Hydrology Present? Yes ○ No •	within a Wetland?	res O NO O
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1	•	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide	• •	Moss Trim Lines (B16)
	neres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)  Presence of Reduc	• •	Crayfish Burrows (C8)
	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
	• •	Geomorphic Position (D2) Shallow Aquitard (D3)
☐ Iron Deposits (B5) ☐ Other (Explain in I ☐ Inundation Visible on Aerial Imagery (B7)	kemarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
		Springfrum moss (DO) (LRC 1, O)
Field Observations: Surface Water Present? Yes No Depth (inches):		
Surface victor victoria.		
	Wetland Hydr	rology Present? Yes O No 💿
Saturation Present? Yes No Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), ir avail	able:

Tree Stratum (Plot size: 30 m	Absolute % Cover			Indicator Status	Dominance Test worksheet:				
, 1100,0110		_			Number of Dominant Species				
1. Pinus elliottii	30		35.7%	FACW	That are OBL, FACW, or FAC: 6 (A)				
2. Quercus nigra	5	-	4.3%	FAC	Total Number of Dominant				
3.	0	<u> </u>	0.0%		Species Across All Strata: 6 (B)				
4.	_ 0		0.0%						
5.	0		0.0%		Percent of dominant Species				
6.	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)				
7.	0		0.0%		Prevalence Index worksheet:				
8.	0		0.0%						
	-	= Total		-					
50% of Total Cover: 17.5 20% of Total Cover: 7		= rotai	Cover		, , , , , , , , , , , , , , , , , , ,				
Sapling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species $55 \times 2 = 110$				
1 Pinus elliottil	25	<b>✓</b> 6.	2.5%	FACW	FAC species $70 \times 3 = 210$				
2. Acer rubrum	10	<b>✓</b> 2.	5.0%	FAC	FACU species $2 \times 4 = 8$				
3. Quercus nigra	_	1	2.5%	FAC	UPL species 0 x 5 = 0				
4	0		0.0%						
E			0.0%		Column Totals: 127 (A) 328 (B)				
			0.0%	-	Prevalence Index = $B/A = 2.583$				
6		=			Hydrophytic Vegetation Indicators:				
/	0		0.0%		nyurophytic vegetation mulcators.				
8	0	0	0.0%	-	1 - Rapid Test for Hydrophytic Vegetation				
50% of Total Cover: 20 20% of Total Cover: 8	40 =	= Total	Cover		✓ 2 - Dominance Test is > 50%				
Shrub Stratum (Plot size: 30 m )	1				✓ 3 - Prevalence Index is ≤3.0 ¹				
	20		c 701	-10					
1 Morella cerifera	30		_	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
2. Acer rubrum	10			FAC					
3. Ilex vomitoria	. 5	1:	1.1%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
4	0		0.0%		be present, unless disturbed or problematic.				
5.	0		0.0%		Definition of Vegetation Strata:				
6.	0		0.0%	-	Tree - Woody plants, excluding woody vines,				
50% of Total Cover: 22.5 20% of Total Cover: 9		= Total			approximately 20 ft (6 m) or more in height and 3 in.				
30% of Ibital Cover. 22.5 20% of Ibital Cover. 9	43	= rocar	Cover		(7.6 cm) or larger in diameter at breast height (DBH).				
Herb Stratum (Plot size: 30 m									
1 Eupatorium capillifolium	2	<b>10</b>	0.0%	FACU	Sapling - Woody plants, excluding woody vines,				
2.			0.0%	70	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.				
	-	=	0.0%		Than 6 in (1.6 din) DDI i.				
3	-				Sapling/Shrub - Woody plants, excluding vines, less				
4			.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.				
5,	0		0.0%		,				
6,	0		.0%		Shrub - Woody plants, excluding woody vines,				
7	0	LI0	.0%		approximately 3 to 20 ft (1 to 6 m) in height.				
8.	0	o.	0.0%						
9	0	□ 0.	.0%		Herb - All herbaceous (non-woody) plants, including				
10.	0	_ n	0.0%		herbaceous vines, regardless of size, and woody				
11			.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.				
11					o ic (1 iii) iii iioigiia				
12	0	LJ_0.	.0%		Woody vine - All woody vines, regardless of height.				
50% of Total Cover: 1 20% of Total Cover: 0.4	2 =	= Total	Cover		vyoddy ville - Ail woddy villes, regardless of fleight.				
Woody Vine Stratum (Plot size: 30 m									
Vitis rotundifolia	5	<b>1</b> 00	0.0%	FAC [					
2			.0%						
3	0		.0%	-					
1.	0	٥.	.0%		15-d				
5.	0	0.	.0%		Hydrophytic Vegetation				
% of Total Cover: 2.5 20% of Total Cover: 1 5 = Total Cover					Present? Yes  No				
Remarks: (If observed, list morphological adaptations below).									

SOIL Sampling Point: Up - 7 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (Inches) Color (moist) 0/p Loc2 Color (moist) % Type Texture Remarks 0-5 10YR 3/2 100 Mottling in lower horizon. 10YR 5-20 4/4 95 10YR Loamy Sand 6/6 <sup>1</sup>Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining. M=Matrix Hydric Soll Indicators: Indicators for Problematic Hydric Soils3: 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) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) 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) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) ☐ Muck Presence (A8) (LRR U) Redox Depressions (F8) Other (Explain in Remarks) 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 Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) <sup>3</sup>Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomaious Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) ☐ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes 💿 No O Depth (inches): Remarks: there appears to be some silty clay below 16 inches. Some dark orange brown mottles and some rusty orange redox features in approximately 5% of the total matrix.

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date:	11-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 8	
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7 s R 1	6 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex Slope:	3.0 % / 1.7°
A seed 1. * * *** seeded - APT**-A		tum; NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A	Lann, I.V. II. O
Are climatic/hydrologic conditions on the site typical for this time of you	(	● No ○
	The Hollies discullations probable.	9 NO C
	problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing sa	impling point locations, transects, important features	s, etc.
Hydrophytic Vegetation Present? Yes ◎ No ○	Is the Sampled Area	
Hydric Soil Present? Yes ○ No ●	Von O No O	
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?	
Remarks:	·	
Sideslope within 30 to 40 feet of drainage way approximately 200 t	eet from Turtleskin Creek Bridge.	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 re	equired)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)	
Surface Water (A1)	13) Sparsely Vegetated Concave Surface	ce (B8)
High Water Table (A2) Marl Deposits (B:	.5) (LRR U) Drainage Patterns (B10)	
Saturation (A3) Hydrogen Sulfide	_ ` ` `	
	heres along Living Roots (C3)	
Sediment Deposits (B2)		
i — —	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery	y (C9)
Algal Mat or Crust (B4)  Thin Muck Surface		
Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7)		
Water-Stained Leaves (B9)	✓ FAC-Neutral Test (D5)	
	☐ Sphagnum moss (D8) (LRR T, U)	
Field Observations:  Surface Water Present? Yes No Depth (inches):		
	Wetland Hydrology Present? Yes O No	<b>●</b>
Saturation Present? (includes capillary fringe)  Yes No Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:	
Remarks:		
		ĺ

ree Stratum (Plot size: ,30 m )	% Cover		<ul> <li>Indicator</li> <li>Status</li> </ul>	Dominance Test worksheet:
				Number of Dominant Species
Plnus elliottii	10	55.69		That are OBL, FACW, or FAC: 7 (A)
Nyssa sylvatica	5	27.89		Total Number of Dominant
Quercus nigra	3	16.7%	*** · · · · ·	Species Across All Strata: 7 (B)
man a man a man	# 1 Marco 146	0.0%		
	0_	0.0%	a	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
T	0	0.0%	A 140	That are Obt, Facw, of Fac:
	0	0.0%		Prevalence Index worksheet:
	0	0.0%		Total % Cover of: Multiply by:
50% of Total Cover: 9 20% of Total Cover: 3.6	18	= Total Cov	er	OBL species $0 \times 1 = 0$
apling or Sapling/Shrub Stratum (Plot size: 30 m				FACW species 44 x 2 = 88
		<b>✓</b> 55.6%	FAC	FAC species 28 x 3 = 84
		<b>✓</b> 27.8%		
Model Live and the second control of the sec				FACU species 0 x 4 =0
Quercus texana	1	5.6%		UPL species $0 \times 5 = 0$
Quercus nigra	2	11.1%		Column Totals: 72 (A) 172 (B)
-	0	0.0%		Prevalence Index = B/A = 2.389
FIN	0	0.0%		
H V	. 0	0.0%		Hydrophytic Vegetation Indicators:
Tel	0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
50% of Total Cover: 9 20% of Total Cover: 3.6	18	= Total Cov	er	✓ 2 - Dominance Test is > 50%
hrub Stratum (Plot size: 30 m		[ <b>4</b> ] = 1 and	54.504	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex corlacea	20	71.4%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria	5	17.9%		
Cyrilla racemiflora	3	10.7%	FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0	0.0%		be present unless distance of problematic
	0	0.0%		Definition of Vegetation Strata:
. 50% of Total Cover: 14 20% of Total Cover: 5.6		0.0%		Tree - Woody plants, excluding woody vines,
		= Total Cov	/er	approximately 20 ft (6 m) or more in height and 3 in.
	28:			(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m)		_		Sapling - Woody plants, excluding woody vines,
. Ilex corracea	5	71.4%	FACW	approximately 20 ft (6 m) or more in height and less
Morella cerifera		28.6%	FAC	than 3 in. (7.6 cm) DBH.
	0	0.0%		
	0	0.0%		Sapling/Shrub - Woody plants, excluding vines, less
).	0	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.
-	0	0.0%		Ohank Maada alasta analadian mada isaa
· · · · · · · · · · · · · · · · · · ·		0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	-	0.0%		approximately 5 to 25 ft (1 to 5 ft) in freigna
).		0.0%		Herb - All herbaceous (non-woody) plants, including
	_			herbaceous vines, regardless of size, and woody
	0	0.0%		plants, except woody vines, less than approximately
	0	0.0%	t-1	3 ft (1 m) in height.
	_ 0	0.0%		
0% of Total Cover: 3.5 20% of Total Cover: 1.4	7 =	= Total Cov	er	Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot size: 30 m				
Vitis rotundifolia	_ 1	100.09	FAC	
		0.0%	INC	
	_			
	0	0.0%		
		0.0%		Hydronhytic
	0	0.0%		Hydrophytic Vegetation
50% of Total Cover: 0.5 20% of Total Cover: 0.2		= Total Cov	er	Present? Yes  No
1 Maria - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				

SOIL					Sampling Point: Up - 8
Profile Desci	ription: (Desc	cribe to	the depth	needed to document the Indicator or confirm	n the absence of indicators.)
Depth		Matrix_		Redox Features	
(inches)	Color (n	noist)	0/0	Color (moist) % Type 1 Lo	oc² Texture Remarks
0-4	10YR	4/2	100		
4-16	10YR	5/6	100		
	· · · ·				
_			k j. :		
-	-	_	_		
		Depletion	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains	<sup>2</sup> Location: PL=Pore Lining. M=Matrix
iydric Soli I					Indicators for Problematic Hydric Soils <sup>3</sup> :
☐ Histosol (	-			Polyvalue Below Surface (S8) (LRR S, T, L	U)
<b>→</b> · · ·	pedon (A2)			Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
_ Black Hist				Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
_ , _	Sulfide (A4)			Loamy Gleyed Matrix (F2)	Piedmont Floodpiain Soils (F19) (LRR P, S, T)
_	Layers (A5)			Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20) (MLRA 153B)
	odies (A6) (LR		-	Redox Dark Surface (F6)	Red Parent Material (TF2)
5 cm Muc	ky Mineral (A7	) (LRR P,	, T, U)	Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (TF12)
Muck Pres	sence (A8) (LR	RU)		Redox Depressions (F8)	Other (Explain in Remarks)
1 cm Muc	k (A9) (LRR P,	T)		Marl (F10) (LRR U)	
Depleted	Below Dark Su	rface (A1	11)	Depleted Ochric (F11) (MLRA 151)	
Thick Darl	k Surface (A12	)		☐ Iron-Manganese Masses (F12) (LRR O, P,	, T)
Coast Prai	irie Redox (A16	5) (MLRA	150A)	Umbric Surface (F13) (LRR P, T, U)	•
Sandy Mu	ck Mineral (S1)	) (LRR O	, S)	Delta Ochric (F17) (MLRA 151)	_
_	yed Matrix (S4			Reduced Vertic (F18) (MLRA 150A, 150B)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Red				Piedmont Floodplain Solls (F19) (MLRA 14	wedalid liyarology mast be present,
_ `	/latrix (S6)			Anomalous Bright Loamy Soils (F20) (MLR	-
	ace (S7) (LRR I	P, S, T, l	J)		0121314 -0004 -0007
			•		
	ayer (if obser	ved):			
Type:					Hydric Soil Present? Yes No 💿
Depth (inch	nes):				Tryancian 183 NO -
emarks:					

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 11-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up -9
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7s R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Slope: 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR T Lat.:	30° 24' 29.150" N Long.: 89° 36' 46.346" W Datum: NAD83
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of yea	ar? Yes No (If no, explain in Remarks.)
	tly disturbed? Are "Normal Circumstances" present? Yes   No O
	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	impling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	T-41-6:1-11
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area  Within a Motional Yes No   No   No
Wetland Hydrology Present? Yes O No •	within a Wetland? Yes ONO O
Remarks:	
Sideslope of moving into land drainage feature that feeds and ephen	meral stream flowing into Turtleskin Creek.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1)	
High Water Table (A2)  Marl Deposits (B15)	
Saturation (A3) Hydrogen Sulfide (	
	heres along Living Roots (C3)
Sediment Deposits (B2)  Presence of Reduc	$\equiv$ $\cdot$
	ction In Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface	
☐ Iron Deposits (B5) ☐ Other (Explain in R	
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 No Denth (inches):	
Surface Witch Frederick	
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ④
Saturation Present? (Includes capillary fringe) Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
Rendra.	.0

0	
Magnolia virginiane	
3. Querous higher 4. Nysse sylvatics 5	(A)
4. Nysss sylvetica	
5	(B)
6.	
0	(A/B)
8.   0	
Solid of Total Cover: 16   20% of Total Cover: 6.4   32   = Total Cover	
1.   Magnolia virgiplatina   20   \$\subseteq\$ 5.71.%   FACW   F	
1. Magnolia virginiana 2.	
2. Pinus elliotiti 30.	6
2. Pinus elliotiti 30.	1
Myssa syNetica	MA %   "MA
Column Totals: 131 (A) 280	
0	
6.   0	
7.   0	
8.	
Solution   Shrub Stratum   Flot size:   30 m	
Shrub Stratum   Plot size: 30 m   3   1   1   1   1   1   1   1   1   1	)IS
1.	
2   Ilex vomitoria	
1 Indicators of hydric soil and wetland hydrole   0	Explain)
1	
1	
Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height are the plant approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more in height approximately 20 ft (6 m) or more	
### Stratum (Plot size: 30 m )  1. Arundinaria tecta	
Herb Stratum	
Herb Stratum	ind 3 in.
1. Arundinaria tecta 2.	ii (Don).
Arundinana tecta	ies,
3.	
4. 0	
5.	1
5.	
7.	
8.	s,
9.	
10.	
10.	
11.	
12.	Ī
50% of Total Cover: 1.5   20% of Total Cover: 0.6   3   = Total Cover   Woody Vine - All woody Vines, regardless of homology Vine Stratum   Plot size: 30 m	
Woody Vine Stratum       (Plot size: 30 m)         1. Vitis rotundifolia       1	neight.
1	
2. 0 □ 0.0% 3. 0 □ 0.0% 4. 0 □ 0.0%	
3.	
0 □ 0.0%	
Liverantific	
5. O O O O O Vegetation	
50% of Total Cover: 0.5 20% of Total Cover: 0.2 1 = Total Cover Present? Yes No C	
Remarks: (If observed, list morphological adaptations below).	

SOIL Sampling Point: Up -9 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (inches) Color (moist) Loc2 Texture Color (moist) Type Remarks 0-5 10YR 3/2 100 Loamy Sand 5-16 10YR 4/4 100 Loamy Sand <sup>1</sup>Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils3: 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) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) 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) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) □ Very Shallow Dark Surface (TF12) ☐ Muck Presence (A8) (LRR U) Redox Depressions (F8) Other (Explain in Remarks) 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) Delta Ochric (F17) (MLRA 151) Sandy Muck Mineral (S1) (LRR O, S) <sup>3</sup>Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) wetland hydrology must be present, 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): Туре: Yes 🔾 No 💿 Hydric Soil Present? Depth (inches):, Remarks: Sandy loam, fairly dry with crumbly texture. Uniform grayish yellow to brown below 4-inches.

Applicant/Owner: NASA  Investigator(s): Lars Larson, Randv Ellis Sect  Landform (hillslope, terrace, etc.): Terrace Local  Subregion (LRR or MLRA): LRR T Lat.: 30° 2  Soil Map Unit Name: SaC, Saucier fine sandy loam, 5 to 8 percent slopes  Are climatic/hydrologic conditions on the site typical for this time of year?  Are Vegetation , Soil , or Hydrology significantly distributed.	NWI classification: N/A  Yes No (If no, explain in Remarks.)  urbed? Are "Normal Circumstances" present? Yes No ()
Are Vegetation , Soil , or Hydrology  naturally problem  SUMMARY OF FINDINGS - Attach site map showing sampling  Hydrophytic Vegetation Present? Yes No No	
Hydric Soil Present?  Wetland Hydrology Present?  Remarks:  Just off logging road-cut trail 30 feet approximately 500-feet south of railb	within a Wetland? Yes O No
HYDROLOGY	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Presence of Reduced Iron  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)  Ing Living Roots (C3)  In (C4)  Tilled Soils (C6)  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?  Water Table Present?  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous present)	Wetland Hydrology Present? Yes O No   No
Remarks:	

Tree Stratum (Plot size: 30 m )		-	pecies? .		Sampling Point: Up - 10
Turne Characteristic (Plot size: 30 m )		e R	el.Strat.		Dominance Test worksheet:
	% Cove		Cover	Status	Number of Dominant Species
Pinus elliottii Nyssa sylvatica	15	~		FACW	That are OBL, FACW, or FAC: 6 (A)
Nyssa syfvatica  Quercus virginiana	5		17.9%	FAC	Total Number of Dominant
Quercus virginiana			17.9%	FACU	Species Across All Strata: 6 (B)
Quercus nigra	3,		10.7%	FAC	
	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
w	. 0		0.0%		That Are ODE, FACW, OF FAC.
	0		0.0%		Prevalence Index worksheet:
V <u>====================================</u>	0		0.0%		Total % Cover of: Multiply by:
0% of Total Cover: 14 20% of Total Cover: 5.6	28	= T	otal Cove	r	OBL species 0 x 1 = 0
apling or Sapling/Shrub Stratum (Plot size: 30 m	)				FACW species 40 x 2 = 80
Pinus elliottii	15	<b>V</b>	60.0%	FACW	FAC species 68 x 3 = 204
Quercus nigra		<b>Y</b>	40.0%	FAC	FACU species $5 \times 4 = 20$
	0		0.0%		UPL species $0 \times 5 = 0$
	0		0.0%		
	0		0.0%		Column Totals: 113 (A) 304 (B)
	0		0.0%		Prevalence Index = B/A = 2.690
	0	$\Box$	0,0%		Hydrophytic Vegetation Indicators:
K .	0	$\exists$	0.0%		
200 of Tabel Course 42.5		_			1 - Rapid Test for Hydrophytic Vegetation
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= 10	otal Cove	r	✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Ilex vomitoria	40	V	75.5%	FAC	☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex coriacea	10		18.9%	FACW	
Quercus nigra	3		5.7%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	0		0.0%		be present, unless disturbed or problematic.
			0.0%		Definition of Vegetation Strata:
	0		0.0%		Tree - Woody plants, excluding woody vines,
0% of Total Cover: 26.5 20% of Total Cover: 10.6	53	= Te	otal Cove		approximately 20 ft (6 m) or more in height and 3 in.
					(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m., )					Sapling - Woody plants, excluding woody vines,
			0.0%		approximately 20 ft (6 m) or more in height and less
	0	1 4	0.0%		than 3 in. (7.6 cm) DBH.
		=	. 0.0 /0		
	0		0.0%		, ,
	0		-		Sapling/Shrub - Woody plants, excluding vines, less
· · · · · · · · · · · · · · · · · · ·	0		0.0%		, ,
,	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	0		0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less
	0		0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	0 0		0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
	0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including
	0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
	0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
o% of Total Cover: 0 20% of Total Cover: 0	0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
)% of Total Cover: 0 20% of Total Cover: 0 pody Vine Stratum (Plot size: 30 m )	0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
9% of Total Cover: 0 20% of Total Cover: 0  pody Vine Stratum (Plot size: 30 m )  Vitis rotundifolia	0 0 0 0 0 0 0 0 0	<b>V</b>	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
% of Total Cover: 0 20% of Total Cover: 0  cody Vine Stratum (Plot size: 30 m )  Vitis rotundifolia  Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
9% of Total Cover: 0 20% of Total Cover: 0  cody Vine Stratum (Plot size: 30 m )  Vitis rotundifolia  Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0	<b>V</b>	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
0% of Total Cover: 0 20% of Total Cover: 0 cody Vine Stratum (Plot size: 30 m ) Vitis rotundifolia Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0	<b>V</b>	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine - All woody vines, regardless of height.
0% of Total Cover: 0 20% of Total Cover: 0  cody Vine Stratum (Plot size: 30 m )  Vitis rotundifolia  Smilax rotundifolia	0 0 0 0 0 0 0 0 0 0 0	<b>V</b>	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	FAC	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

TOTILE DESCRI	ption: (Des	cribe to	the depth i	needed to documen	t the indic	cator or co	nfirm the al	bsence of indicators.)	
Depth		Matrix	W	Re	dox Feat	ıres			
(inches)	Color (r		₩	Color (moist)	%	Type 1	Loc2	Texture	Remarks
0-5	10YR	4/2	100	THE .		·*			· # - V.
5-16	10YR	5/3	100			-			
Type: C=Conc		-Depletion	n. RM= <b>Redu</b>	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>z</sup> Locatio	on: PL=Pore Lining, M=	
Histosol (A				Polyvalue Be	low Eurface	(CO) (LDD (	: T III		lematic Hydric Soils <sup>3</sup> :
Histic Epip	-							1 cm Muck (A9)	` '
Black Histi				Thin Dark Su Loamy Muck			)	2 cm Muck (A10)	
	Sulfide (A4)			Loamy Gleye	•			_	F18) (outside MLRA 150A,B)
Stratified L				Depleted Mai		2)		_	lain Soils (F19) (LRR P, S, T)
_	dies (A6) (LF	RR P. T. U	1)	Redox Dark S		,		_	t Loamy Soils (F20) (MLRA 153B)
	y Mineral (A7		-	Depleted Dar				Red Parent Mater	• •
_	ence (A8) (LF		, - ,	Redox Depre		'''		Very Shallow Dar	
_	(A9) (LRR P			☐ Marl (F10) (L				U Other (Explain in	Remarks)
_	elow Dark Su	•	1)	Depleted Och		ΔΙ RΔ 151)			
_ `	Surface (A12	•	•	☐ Iron-Mangan			0 P T)		
	ie Redox (A1	•	150A)	Umbric Surfa			O, 1 , 1 )		
_	k Mineral (S1			Delta Ochric					
_	ed Matrix (S		, -,	Reduced Verl		-	150B)	<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Red	_	•,		☐ Piedmont Flo			-		hydrology must be present, disturbed or problematic.
Stripped M								, 153C, 153D)	disturbed or problemade.
<del>-</del> ···	ce (S7) (LRR	P. S. T. U	מ	Anomalous D	rigine coairiy	30113 (1 20)	(HILLAN LTSA	(, 1550, 1550)	
		.,.,.,					1		
estrictive La Type:	yer (if obse	rved):	_						
Depth (inch	es):				_			Hydric Soil Present?	Yes O No 🖲
emarks:									

Trojecty ofter Man Stating, 1,100 Acte Wednie Demication	/County: Waveland - Hancock Sampling Date: 12-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 11
- 1 (1977) - 1 (1977)	ction, Township, Range: S 31 T 7 s R 16 W
Landform (hillslope, terrace, etc.): Hillside Local	Il relief (concave, convex, none): convex Slope: 3.0 % / 1.7
Subregion (LRR or MLRA): LRR T Lat.: 30° 2	24' 16.645" N Long.: 89° 37' 26.574" W Datum: NAD83
Soil Map Unit Name: PoB, Poarch fine sandy loam, 2 to 5% slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . significantly dist	iturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation . , Soil . , or Hydrology . naturally problem	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling	ing point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	Is the Sampled Area
Hydric Soil Present? Yes ○ No ⑤	Vac O No 🔘
Wetland Hydrology Present? Yes O No	within a Wetland?
Remarks:	<del></del>
On sideslope 30-feet up from bottom drainage area, approximately 150-fe	eet North of Turtleskin Creek
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR	
Saturation (A3) Hydrogen Sulfide Odor (C	• •
Water Marks (B1) Oxidized Rhizospheres al	
Sediment Deposits (B2)  Presence of Reduced Iron	_ · · · · · · · · · · · · · · · · · · ·
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in	
Algal Mat or Crust (B4)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Remark	
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 No Depth (inches):	
Surface Wells 17 Country	
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ⊙
Saturation Present? (includes capillary fringe)  Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
	·
Remarks:	

			ominant pecies? _		Sampling Point: Up - 11	
	Absolute		el.Strat.	Indicator	Dominance Test worksheet:	
ree Stratum (Plot size: 30 m )	% Cover		Cover	Status	Number of Dominant Species	
Pinus elliottii	5	<b>V</b>	20.0%	FACW	That are OBL, FACW, or FAC: 6 (A)	
Nyssa sylvatica	10	V	40.0%	FAC	Total Number of Dominant	
Magnolia virginiana		<b>V</b>	32.0%	FACW	Species Across All Strata: 6 (B)	
Quercus nigra	2		8.0%	FAC		
	0		0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)	
	0		0.0%		That Are OBL, FACW, or FAC: 100 0% (AVB)	
LWCC . B	0		0.0%		Prevalence Index worksheet:	
	0		0.0%		Total % Cover of: Multiply by:	
0% of Total Cover: 12.5 20% of Total Cover: 5	25	= Tc	tal Cove	•	OBL species 0 x 1 = 0	
apling or Sapling/Shrub Stratum (Plot size: 30 m	}				FACW species 49 x 2 = 98	
Nyssa sylvatica	10	<b>V</b>	55.6%	FAC	FAC species $31 \times 3 = 93$	
Magnolia virginiana	5_	$\checkmark$	27.8%	FACW	FACU species $1 \times 4 = 4$	
Quercus texana	1		5.6%	FACW	UPL species $0 \times 5 = 0$	
Quercus nigra	2		11.1%	FAC	Column Totals: 81 (A) 195 (B)	
	•		0.0%			
	^		0.0%		Prevalence Index = B/A = 2.407	
			0.0%		Hydrophytic Vegetation Indicators:	
to the same of the	0		0.0%		G Bould West for Understanding	
0% of Total Cover: 9 20% of Total Cover: 3.6		= To	tal Cove		1 - Rapid Test for Hydrophytic Vegetation	
					✓ 2 - Dominance Test is > 50%	
hrub Stratum (Plot size: 30 m	20		05 70/	5154	✓ 3 - Prevalence Index is ≤3.0 ¹	
Ilex coriacea	30	<b>V</b>	85.7%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Ilex vomitoria	3	Η.	8.6%	FAC	<sup>1</sup> Indicators of hydric soll and wetland hydrology mus	
Ilex opaca			5.7%	FAC	be present, unless disturbed or problematic.	
	0	Щ	0.0%			
	0	$\sqsubseteq$	0.0%	. (*	Definition of Vegetation Strata:	
	0	$\sqcup$	0.0%	, .	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.	
0% of Total Cover: 17.5 20% of Total Cover: 7	35 :	= To	tal Cove	•	(7.6 cm) or larger in diameter at breast height (DBH).	
erb Stratum (Plot size: 30 m)						
, Pteridium aquilinum	1		100.0%	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
	0		0.0%		than 3 in. (7.6 cm) DBH.	
			0.0%		,	
			0.0%		Sapling/Shrub - Woody plants, excluding vines, less	
	0	$\overline{\Box}$	0.0%		than 3 in. DBH and greater than 3.28 ft (1m) tall.	
	3		0.0%			
	0	Η.	0.0%		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
		1	0.0%		approximately o to 20 it (1 to 0 iii) iii lielgiit.	
	0		0.0%	_	Herb - All herbaceous (non-woody) plants, including	
	0	$\equiv$	0.0%		herbaceous vines, regardless of size, and woody	
			0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.	
		H			3 It (1 m) in neight.	
	0	щ,	0.0%		Woody vine - All woody vines, regardless of height.	
0% of Total Cover: 0.5 20% of Total Cover: 0.2	_1	= To	tal Cover	1	The state of the s	
oody Vine Stratum (Plot size: 30 m )		_				
Vitis rotundifolia	2	$\sqsubseteq$	100.0%	FAC		
	0		0.0%			
	0	$\Box$	0.0%			
704			0.0%		No de codo de la constante de	
	0				Hydrophytic	
	0		0.0%		Vocatation	
	, 0	 = To	0.0% tal Cover		Vegetation Present?  Yes  No	

rofile Desci					Sampling Point: Up - 11
	iption: (Des		the depth	needed to document the Indicator or confirm	the absence of indicators.)
Depth (inches)	Colou (	Matrix	0/	Redox Features  Color (moist) % Type 1 Loc	oc² Texture Remarks
(inches) 0-5	Color (1	3/3	<b>%</b>	Color (moist) % Type Loc	Learny Sand
5-16	10YR		100	——————————————————————————————————————	Loamy Sand
2-10	IVIK	5/6	100		Loanly Sand
Fype: C≃Cond		=Depletio	n. RM= <b>R</b> edu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>	<sup>2</sup> Location: PL=Pore Lining, M=Matrix  Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (/	<b>41</b> )			Polyvalue Below Surface (S8) (LRR S, T, U	
Histic Epip	edon (A2)			☐ Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Hist	ic (A3)			Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
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) (MLRA 153B)
Organic B	odies (A6) (Li	RR P, T, L	J)	Redox Dark Surface (F6)	Red Parent Material (TF2)
5 cm Muc	ky Mineral (A	7) (LRR P	, T, U)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
	ence (AB) (LI			Redox Depressions (F8)	Other (Explain in Remarks)
_	k (A9) (LRR P			Marl (F10) (LRR U)	
···	Beiow Dark S		11)	Depleted Ochric (F11) (MLRA 151)	
_	c Surface (A1	-		Iron-Manganese Masses (F12) (LRR O, P,	T)
_	rie Redox (A1		_	Umbric Surface (F13) (LRR P, T, U)	
_	ck Mineral (S:		, S)	Delta Ochric (F17) (MLRA 151)	<sup>3</sup> Indicators of hydrophytic vegetation and
_	yed Matrix (S	4)		Reduced Vertic (F18) (MLRA 150A, 150B)	vetland hydrology must be present,
Sandy Red				Piedmont Floodplain Soils (F19) (MLRA 149	
Stripped M				Anomaious Bright Loamy Soils (F20) (MLR/	A 149A, 153C, 153D)
Dark Surfa	ice (S7) (LRR	P, S, T, l	J)		
	yer (if obse	rved):			
Type:  Depth (inches):				Hydric Soil Present? Yes O No	
Deptil (litter	les)			7	
emarks:					

Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes  Are climatic/hydrologic conditions on the site typical for this time of ye	
Are Vegetation , Soil , or Hydrology naturally ;	tly disturbed? Are "Normal Circumstances" present? Yes  No  No  problematic? (If needed, explain any answers in Remarks.) Impling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No No No No No No No No Remarks:	Is the Sampled Area within a Wetland? Yes No   No
HYDROLOGY	
Sediment Deposits (B2)	Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Odor (C1)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  ced Iron (C4)  Crayfish Burrows (C8)  Ction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  e (C7)  Geomorphic Position (D2)
Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Describe Recorded Data (stream gauge, monitoring well, aerial photo	Wetland Hydrology Present? Yes ○ No ●
Remarks:	

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Dominant

Absolute % Cover 25 5 3 0 0	Re	75.8% 15.2% 9.1%	Indicator Status FACW FACW	Dominance Test worksheet:     Number of Dominant Species     That are OBL, FACW, or FAC:     Total Number of Dominant
25 5 3 0		75.8% 15.2% 9.1%	FACW FACW	That are OBL, FACW, or FAC: 4 (A)
5 3 0 0		15.2% 9.1%	FACW	That are OBL, FACW, or FAC: 4 (A)
3 0 0		9.1%		Total Number of Dominant
0			FAC	
. 0	Ш,	0.55		Species Across All Strata: 4 (B)
		0.0%		
0	Ц.	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
-	Ш	0.0%		THACKIE ODL, TACW, OF TAC.
0		0.0%		Prevalence Index worksheet:
0		0.0%	N F 1000 T	Total % Cover of: Multiply by:
33	= To	tal Cove	•	OBL species 0 x 1 = 0
}				FACW species
30	<b>V</b>	71.4%	FACW	FAC species 19 x 3 = 57
10	<b>V</b>	23.8%	FAC	FACU species $0$ $\times 4 = 0$
		4.8%	FAC	UPL species $0 \times 5 = 0$
0		0.0%		Column Totals: 129 (A) 277 (B)
0		0.0%		COTOMIC TOLETS ILD CO
0		0.0%		Prevalence Index = B/A = 2.147
0		0.0%		Hydrophytic Vegetation Indicators:
0		0.0%		David France - 12 december - 1
	 _ To			1 - Rapid Test for Hydrophytic Vegetation
72	_ 10	OF COACI		✓ 2 - Dominance Test is > 50%
				✓ 3 - Prevalence Index is ≤3.0 ¹
	<b>Y</b> .			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	Ц.	5.6%	FAC	1
1	Ш.	1.9%	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.
0	Ш,	0.0%		
0		0.0%		Definition of Vegetation Strata:
0	Щ	0.0%		Tree - Woody plants, excluding woody vines,
54 =	= To	tal Cover	•	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
				, , ,
		0.0%		Sapling - Woody plants, excluding woody vines,
0	$\Box$			approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	$\exists$			than 5 lit. (7.5 cm) DBH.
	$\Box$	_		Sapling/Shrub - Woody plants, excluding vines, less
	$\Box$			than 3 in. DBH and greater than 3.28 ft (1m) tall.
			.м.	
Ser or me	H		-	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
-	<u> </u>			approximately 5 to 20 ft (1 to 6 m) in neight.
	님.			Herb - All herbaceous (non-woody) plants, including
-	H			herbaceous vines, regardless of size, and woody
_	H			plants, except woody vines, less than approximately 3 ft (1 m) in height.
	H		4	o it (1 iii) iii noigiit
-	Ц.			Woody vine - All woody vines, regardless of height.
0 =	= Tol	taı Çover		
				<del></del>
0		0.0%		
0		0.0%		
0		0.0%		
0		0.0%		
0		0.0%		Hydrophytic Vegetation
0 =	= Tot	tal Cover		Present? Yes  No
	30 10 2 0 0 0 0 0 0 42 50 3 1 0 0 0 0 0 54 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30	30	30

Color (moist)  % Color (moist)  % Type  Loc2  Texture Remarks    Loamy Sand   Loamy	Depth	ription: (De	Matrix		Re	dox Featu				
Coamy Sand    Coamy Sand   Coam		Color		. %				Loc2	Texture	Remarks
This Dark Surface (SB) (LRR S, T, U)  Black Histic Epipedon (A2)  Hydrogen Sulfide (A4)  Hydrogen Sulfide (A4)  Corganic Bodies (A5)  Organic Bodies (A6) (LRR P, T, U)  Redox Dark Surface (F6)  Som Mucky Mineral (A7) (LRR P, T, U)  Mark (F10) (LRR U)  Redox Depressions (F8)  I Loamly Salid  Redissiblity some REDOx below  PL=Pore Lining. M=Matrix  Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problemati	-									
Histosol (A1)  Histo Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Tom Mucky Mineral (A7) (LRR P, T, U)  Redox Dark Surface (F6)  Muck Presence (A8) (LRR U)  Tom Muck (A9) (LRR O)  1 cm Muck (A10) (LRR S)  Reduced Vertic (F18) (outside MLRA 150A,B)  Piedmont Floodplain Soils (F19) (LRR P, S, T)  Stratified Layers (A5)  Depleted Matrix (F3)  Anomalous Bright Loamy Soils (F20) (MLRA 153B)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Muck Presence (A8) (LRR U)  Redox Depressions (F8)  Other (Explain in Remarks)  Depleted Below Dark Surface (A11)  Depleted Ochric (F11) (MLRA 151)	5-16	10YR	4/3	97	10YR 6/8	3	. С	М	Loamy Sand	appears to be mottles, rossibly some REDOX below
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 Muck Mineral (S1) (LRR O, S)   Delta Ochric (F17) (MLRA 151)	ydric Soil I  Histic Epip Histic Epip Black Hist Hydrogen Stratified I Organic B 5 cm Muci Muck Pres 1 cm Muci Depleted I Thick Dark	indicators: A1) pedon (A2) ic (A3) Sulfide (A4) Layers (A5) odies (A6) (L ky Mineral (A sence (A8) (L k (A9) (LRR (A9) k (A9) (LRR (A9) k Surface (A1 irie Redox (A	.RR P, T, U .V7) (LRR P, .RR U) P, T) Surface (A1 .L2) 16) (MLRA	.) .T, U) .1)	Polyvalue Bek Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark Si Depleted Dark Redox Depres Marl (F10) (LF Depleted Ochr Iron-Mangane	ow Surface face (S9) ( Mineral (F Matrix (F2 ix (F3) urface (F6) Surface (F8) RR U) ic (F11) (M se Masses	(S8) (LRR LRR S, T, L 1) (LRR O) :) =7) ILRA 151) (F12) (LRR	S, T, U) )	Indicators for P  1 cm Muck (/ 2 cm Muck (/ Reduced Verl Pledmont Flo Anomalous B Red Parent M Very Shallow	M=Matrix  roblematic Hydric Soils <sup>3</sup> :  A9) (LRR O)  A10) (LRR S)  dic (F18) (outside MLRA 150A,B)  odplain Soils (F19) (LRR P, S, T)  right Loamy Soils (F20) (MLRA 153B)  faterial (TF2)  Dark Surface (TF12)
		yer (if obs	erved):							
estrictive Layer (if observed):		nes):							Hydric Soil Preser	nt? Yes 🏵 No 🔾
Type:						in the lo	war nartia	n of the so	oil profile, but has ti	ne appearance of a sandy redox

Traject, Start Starting 1/2007 at C Produits Sources	ounty: Waveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 14
Investigator(s): Lars Larson, Randy Ellis Section	on, Township, Range: S 29 T 7s R 16 W
Landform (hillshope, terrace, etc.): Terrace Local re	elief (concave, convex, none): _none
Subregion (LRR or MLRA): LRR T Lat.: 30° 24	1 10.337" N Long.: 89° 37' 1.097" W Datum: NAD83
Soil Map Unit Name: At, Atmore silt loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
	(a) 11- (a) 11- (b)
Are Vegetation , Soil , or Hydrology significantly disturbed.  Are Vegetation , Soil , or Hydrology naturally problem.	Ale Hornia chedinocolices presenti
SUMMARY OF FINDINGS - Attach site map showing sampling	
Hydrophytic Vegetation Present? Yes  No  No	
Hydric Soil Present? Yes ○ No ⑥	Is the Sampled Area  Ves O No   No   No   No   No   No   No   No
Wetland Hydrology Present? Yes O No •	within a Wetland? Yes O NO O
Remarks: Terrace Upland area approximately 400 feet North of logging road in centra transition out of slightly wetter area to the south.	Il portion of AOI south of TS Creek. Small patch area that appears to
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U	
Saturation (A3) Hydrogen Sulfide Odor (C1	
Water Marks (B1) Oxidized Rhizospheres alor	
Sediment Deposits (B2)  Presence of Reduced Iron	
Drift Deposits (B3) Recent Iron Reduction in T Algal Mat or Crust (B4) Thin Muck Surface (C7)	Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Remarks) ☐ Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
	Spriagram moss (po) (ERC 1, 0)
Field Observations:  Surface Water Present? Yes No Depth (inches):	
	Wetland Hydrology Present? Yes O No 💿
Saturation Present? Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ious inspections), if available:
Remarks:	
Remarks:	

# VEGETATION (Five/Four Strata) - Use scientific names of plants. Dominant

<del></del>		Domina		Sampling Point: Up - 14
	Absolute	_ Species Rel.Stra		Dominance Test worksheet:
ree Stratum (Plot size: 30 m	% Cove			Number of Dominant Species
Pinus elliottii	10	₹ 66.7	% FACW	That are OBL, FACW, or FAC: 9 (A)
Magnolia grandiflora	3	<b>✓</b> 20.0	% FAC	
Magnolia virginiana	2	13.3	% FACW	Total Number of Dominant Species Across All Strata: 9 (B)
		0.0	V <sub>0</sub>	Species Across Air Strate.
		0.0	<b>%</b>	Percent of dominant Species
		0.0		That Are OBL, FACW, or FAC: 100.0% (A/B)
	40	0.0		Prevalence Index worksheet:
		0.0	- Jr.	
ON of Tabal Courses 7.5 200% of Tabal Courses 2	0			Total % Cover of: Multiply by:  OBL species 0 x 1 = 0
0% of Total Cover: 7.5 20% of Total Cover: 3		= Total Co	ver	-
apling or Sapling/Shrub Stratum (Plot size: 30 m				FACW species 77 x 2 = 154
Pinus elliottii		50.0	% FACW	FAC species $19 \times 3 = 57$
Quercus falcata	1	☐, _ 5.0°		FACU species $\frac{1}{x}$ $x = 4$
Acer rubrum	5	<b>25.0</b>	% FAC	UPL species $0 \times 5 = 0$
Liquidambar styraciflua	4	<b>20.0</b>	% FAC	Column Totals: 97 (A) 215 (B)
		0.0	<b>/</b> o	
		0.0	/6	Prevalence Index = B/A = 2.216
	1.0	0.0	V <sub>0</sub>	Hydrophytic Vegetation Indicators:
	0	0.0	/6	1 - Danid Took for Undershydda Vonetaliau
0% of Total Cover: 10 20% of Total Cover: 4		= Total Co	ver	1 - Rapid Test for Hydrophytic Vegetation
9 5 - 39		. Jour of		✓ 2 - Dominance Test is > 50%
rub Stratum (Plot size: 30 m )				✓ 3 - Prevalence Index is ≤3.0 ¹
Ilex coriacea		66.7		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Ilex vomitoria	5	11.1	% FAC	
Ilex glabra	10	22.2	% FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0	0.09	6	be present, unless distailed of problematic
	0	0.09	6	Definition of Vegetation Strata:
	0	0.09	6	Tree - Woody plants, excluding woody vines,
0% of Total Cover: 22.5 20% of Total Cover: 9	45	= Total Co	ver	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot size: 30 m )				
Ilex glabra	10	66.7	% FACW	Sapling - Woody plants, excluding woody vines
Ilex coriacea	5	33.3		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
V	0	0.09		than 5 in. (7.6 din) DBH.
	0	0.09		Sapling/Shrub - Woody plants, excluding vines, less
•			4	than 3 in. DBH and greater than 3.28 ft (1m) tall.
-		0.09		
	0_	0.09		Shrub - Woody plants, excluding woody vines,
		0.09		approximately 3 to 20 ft (1 to 6 m) in height.
	0	0.09		Herb All barbaneous (non-use de Aulente in-te-di-
The state of the s	0	0.09	6	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
	0	0.09	6	plants, except woody vines, less than approximately
	0,	0.09	6.,	3 ft (1 m) in height.
	0	0.09	6	
0% of Total Cover: 7.5 20% of Total Cover: 3	15	= Total Co	ver	Woody vine - All woody vines, regardless of height.
(Plat rize: 20 m				
oody Vine Stratum (Plot size: 30 m )	-	[]	0/ 546	
Smilax rotundifolia	2		% FAC	
		0.09	v .,	
		0.0%		
	0	0.0%	6	Mudaabada
	0	0.09	6	Hydrophytic
			r .	Vegetation   Present? Yes

0-5 5-18		Matrix		Redox Features			
0-5	Color (		0/0	Color (moist) % Type 1	Loc2	Texture	Remarks
5-18	10YR	3/2	100			Sandy Loam	7337111
	10YR	5/6	100			Sandy Loam	
ype: C=Concen	tration. D:	=Depletion	n. RM= <b>R</b> edu	iced Matrix, CS=Covered or Coated Sand Grains	s <sup>2</sup> Locai	tion: PL=Pore Lining. M=	Matrix
iydric Soil Indi	icators:			-		Indicators for Pro	olematic Hydric Solls <sup>3</sup> :
Histosol (A1) Histic Epipedo Black Histic ( Hydrogen Sul Stratified Layo Organic Bodie 5 cm Mucky N Muck Presenc 1 cm Muck (A Depieted Belo Thick Dark Su Coast Prairie Sandy Muck N Sandy Gleyed Sandy Redox Stripped Matr	on (A2) A3) Ifide (A4) ers (A5) es (A6) (Li Mineral (A: ce (A8) (Li A9) (LRR P ow Dark Si urface (A1: Redox (A1 Mineral (S: I Matrix (S	7) (LRR P, RR U) P, T) urface (A1 2) 16) (MLRA 1) (LRR O,	, T, U) (1) (150 <b>A)</b>	Polyvalue Below Surface (S8) (LRR S, Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 15 Piedmont Floodplain Soils (F19) (MLRA Anomalous Bright Loamy Soils (F20) (I	, P, T) 0B) \(\) 149A)	Piedmont Floodp Anomalous Brigh Red Parent Mate Very Shallow Da Other (Explain in	) (LRR S) (F18) (outside MLRA 150A,B) (F18) (outside MLRA 150A,B) (All John Soils (F19) (LRR P, S, T) (All Loamy Soils (F20) (MLRA 153B) (All John Surial (TF2) (All John Surial (TF2)
Dark Surface	r (if obse		')			Hydric Soil Present?	Yes ○ No <sup>®</sup>
Depth (inches) Remarks:				4-5 incher bsg. No moisture or hydric in			Tes ○ NO ◎

Project/Site: NASA - Stennis; 1,100 Acre Wedland Delineatiion	City/County: Waveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 16
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 28 T 7s R 16 W
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): Slope: 0.0 % / 0.0
Lanca . N	m, m;
	N/4
Soil Map Unit Name: EsB, Escambia loam, 2 to 5 percent slopes	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	
Are Vegetation , Soil , or Hydrology signif	ficantly disturbed? Are "Normal Circumstances" present? Yes 🍑 No 🔾
Are Vegetation, Soil, or Hydrology natura	rally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	T-11-61-11
Hydric Soil Present? Yes No   No	Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes V No 9
Remarks:	
	he East Side of the AOI. Drinking Water Well (broken - flowing water) feeds a man
made pond and then downslope into a natural wetland.	te East side of the Aos. Difficilly Water Well (Stoken - nowing Water) recess a man
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required: check all that ap	
☐ Surface Water (A1) ☐ Aquatic Faun	
High Water Table (A2) Marl Deposits	ts (B15) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Su	ulfide Odor (C1) Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Oxidized Rhiz	izospheres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3)	Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Surface (C7) Geomorphic Position (D2)
l 👝	ain in Remarks)
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 No Depth (inch	nes):
Water Table Present? Yes No Depth (inch	
Saturation Present? (includes capillary fringe)  Yes No  Depth (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial p	-
bestilbe recorded bata (stream gauge, monitoring well, activity	proces, previous inspectionsy, it available.
Remarks:	

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Dominant
Species?

_	(Plet size: 20 mg	Absolute			Indicator	Dominance Test worksheet:
	ee Stratum (Plot size: 30 m )	% Cover	<b>V</b>	Cover	Status	Number of Dominant Species
1.	Pinus eliottii	<u>10</u>	V	38.5% 38.5%	FAC	That are OBL, FACW, or FAC: 8_ (A)
			<u>.</u>		FAC	Total Number of Dominant
}. 	Quercus nigra			19.2%		Species Across All Strata: 8 (B)
	Quercus virginiana			3.8% 0.0%	FACU	Percent of dominant Species
•		•				That Are OBL, FACW, or FAC: 100.0% (A/B)
				0.0%		
	1., up 1000 A		님	0.0%		Prevalence Index worksheet:
		. 0	Ш,	0.0%		Total % Cover of: Multiply by:
50	% of Total Cover: 13 20% of Total Cover: 5.2	26	= To	tal Cove	r	OBL species 0 x 1 = 0
Sa	pling or Sapling/Shrub Stratum (Piot size: 30 m	)				FACW species <u>17</u> x 2 = 34
	Pinus elliottil	5	V	25.0%	FACW	FAC species 63 x 3 = 189
	Pinus taeda	3		15.0%	FAC	FACU species $1 \times 4 = 4$
	Quercus nigra	10	V	50.0%	FAC	UPL species $0 \times 5 = 0$
	Quercus virginiana	0		0.0%	FACU	Column Totals: 81 (A) 227 (B)
	Magnolia virginlana	2		10.0%	FACW	
				0.0%		Prevalence Index = B/A = 2 802
				0.0%	-	Hydrophytic Vegetation Indicators:
		•		0.0%		D d D il Park St. I belleville at the state of the state
	% of Total Cover: 10 20% of Total Cover: 4		_ =	tal Cove		1 - Rapid Test for Hydrophytic Vegetation
		ZU	10	LAI COVE		✓ 2 - Dominance Test is > 50%
Sh	rub Stratum (Plot size: 30 m )		_			✓ 3 - Prevalence Index is ≤3.0 ¹
	Ilex vomitoria	20	✓.	80.0%	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	Ilex opaca	5	V	20.0%	FAC	
. :		0		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	N # 1 5	0		0.0%		be present, unless disturbed of problematic.
				0.0%		Definition of Vegetation Strata:
		0		0.0%	. /	Tree - Woody plants, excluding woody vines,
	% of Total Cover: 12.5 20% of Total Cover: 5	25	= To	tal Cove	•	approximately 20 ft (6 m) or more in height and 3 in.
						(7.6 cm) or larger in diameter at breast height (DBH).
	b Stratum (Plot size: 30 m					Sapling - Woody plants, excluding woody vines,
	Ilex vomitoria		V.	100.0%	FAC	approximately 20 ft (6 m) or more in height and less
2.		0	Ц,	0.0%		than 3 in. (7.6 cm) DBH.
3.		0	Ш,	0.0%		
4.	.# **.	0		0.0%		Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5.	100	0		0.0%		dian 3 in. DDH and greater than 3.20 it (111) toil.
6.	A	0		0.0%		Shrub - Woody plants, excluding woody vines,
7.	· · · · · · · · · · · · · · · · · · ·	0		0.0%		approximately 3 to 20 ft (1 to 6 m) in height.
				0.0%		
	- 1,			0.0%		Herb - All herbaceous (non-woody) plants, including
				0.0%		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
1.		0		0.0%	-	3 ft (1 m) in height.
2.		0	$\Box$	0.0%		
	% of Total Cover: 2.5 20% of Total Cover: 1		- To	tal Cover		Woody vine - All woody vines, regardless of height.
			- 10	tai Covei		
	ody Vine Stratum (Plot size: 30 m		_			
	Vitis rotundifolia	5	<b>Y</b>	100.0%	FAC	
		. 0	$\square$	0.0%		
		0		0.0%		
		0		0.0%		
		0_		0.0%		Hydrophytic Vegetation
	% of Total Cover: 2.5 20% of Total Cover: 1	5, , =	= To	tal Cover		Present? Yes  No
50					I	

SOIL						Sampling Point: Up - 16		
Profile Desci	ription: (De	scribe to	the depth	needed to document the indicator or	confirm the	absence of indicators.)		
Depth		Matrix		Redox Features		_		
(inches)	Color (	moist)	%	Color (moist) % Type	1 Loc2	Texture Remarks		
0-5	10YR	3/3	100			Loamy Sand		
5-16	10YR	5/6	100			Loamy Sand		
	-				4			
•			-					
	•	•		A A T COMMON AS		λ		
1 Type: C=Cone	centration. D:	=Depletio	n. RM=Redu	iced Matrix, CS=Covered or Coated Sand	Grains <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix		
Hydric Soil I	indicators:		-	<u> </u>		Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol (	A1)			Polyvalue Below Surface (S8) (Li	RR S, T, U)	1 cm Muck (A9) (LRR O)		
Histic Epip	pedon (A2)			☐ Thin Dark Surface (S9) (LRR S, 1	-, U)	2 cm Muck (A10) (LRR S)		
Black Hist	ic (A3)			Loamy Mucky Mineral (F1) (LRR	0)	Reduced Vertic (F18) (outside MLRA 150A,B)		
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) (MLRA 153B)		
_	odies (A6) (L			Redox Dark Surface (F6)		Red Parent Material (TF2)		
5 cm Mucky Mineral (A7) (LRR P, T, U)				Depleted Dark Surface (F7)		☐ Very Shallow Dark Surface (TF12)		
Muck Presence (A8) (LRR U)				Redox Depressions (F8)		Other (Explain in Remarks)		
1 cm Muc	k (A9) (LRR F	P, T)		Marl (F10) (LRR U)		• • •		
	Below Dark S	•	11)	Depleted Ochric (F11) (MLRA 15	1)			
	k Surface (A1			Iron-Manganese Masses (F12) (I	RR O, P, T)			
	irie Redox (A:		-	Umbric Surface (F13) (i_RR P, T,	U)			
	ck Mineral (S		, S)	Delta Ochric (F17) (MLRA 151)		<sup>3</sup> Indicators of hydrophytic vegetation and		
	yed Matrix (S	34)		Reduced Vertic (F18) (MLRA 150	A, 150B)	wetland hydrology must be present,		
Sandy Red				Piedmont Floodplain Soils (F19)		unless disturbed or problematic.		
_	/atrix (S6)			Anomalous Bright Loamy Soils (F	20) (MLRA 14	19A, 153C, 153D)		
☐ Dark Surfa	ace (S7) (LRR	P, S, T, I	J)					
Restrictive La	ayer (if obse	erved):						
Туре:				-		Hydric Soil Present? Yes No 💿		
Depth (incl	nes):	•		· · · · · · · · · · · · · · · · · · ·		Tyune son Pleache: 165 O NO O		
Remarks:								
No hydric indi	icators.							

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineatiion	City/County: Waveland - Hancock Sampling Date: 14-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 17
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 33 T 7 S R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope: 1.0 % / 0.6°
- Manager Mr 146 - F	
1 12 1 mm / 1 12 1 mm	30 23 11/20 11
Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	· · · · · · · · · · · · · · · · · · ·
Are climatic/hydrologic conditions on the site typical for this time of ye	
Are Vegetation , Soll , or Hydrology significant	ntly disturbed? Are "Normal Circumstances" present? Yes   No   No
Are Vegetation . , Soil . , or Hydrology . naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	Is the Sampled Area
Hydric Soil Present? Yes O No	Vac O No 💿
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?
lack of hydrology. Soils still show signs of REDOX and mottling.	Vet-17. This is on the side of a drained wetland. This area is dryer because of a
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	_
Surface Water (A1) Aquatic Fauna (B	
High Water Table (A2)  Marl Deposits (B1	
Saturation (A3) Hydrogen Sulfide	
	pheres along Living Roots (C3)
Sediment Deposits (B2)  Presence of Redu	
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5) Uther (Explain In	
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 No Depth (inches):	
Surface Water Hesselft	
	: Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspections), if available:
Demodes	
Remarks:	la, disela es a
some light redoximorphic features in lower portion of test hole. No h	nyarology.

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Species? Absolute Rel.Strat. Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: 30 m ) Cover Status % Cover Number of Dominant Species 10 ~ Quercus nigra 50.0% FAC That are OBL, FACW, or FAC: 8 (A) 5 V Pinus elliottil 25.0% **FACW** Total Number of Dominant Nyssa sylvatica 3 15.0% FAC Species Across All Strata: 8 (B) 4. Liquidambar styraclflua 1 5.0% FAC Percent of dominant Species 5. 5.0% 100.0% (A/B) That Are OBL, FACW, or FAC: \_\_\_0 6. 0.0% 0 0.0% 7. Prevalence Index worksheet: \_\_\_\_0 8. \_\_\_\_\_ Total % Cover of Multiply by: 50% of Total Cover: 10 20% of Total Cover: 4 0 x 1 = 20 = Total Cover OBL species 0 32 16 x 2 = Sapling or Sapling/Shrub Stratum (Plot size: 30 m FACW species 60 x 3 = 180 1 Pinus elliottii 3 12.5% FACW FAC species 2 Liquidambar styraciflua 5 ~ 20.8%  $4 \times 4 = 16$ FAC FACU species 3. Quercus nigra 10 0 x 5 = 0 41.7% FAC UPL species Magnolia grandiflora 1 4.2% FAC Column Totals: 80 (A) 228 \_\_\_\_5 **V** 20.8% FAC Myssa sylvatica Prevalence Index = B/A = 2.850 0.0% 6. Hydrophytic Vegetation Indicators: 7. 0 0.0% \_\_\_0 0.0% 8. \_\_ 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 12 20% of Total Cover: 4.8 24 = Total Cover ✓ 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤3.0 ¹ Shrub Stratum (Plot size: 30 m ) 1 Ilex vomitoria ☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) 10 71.4% FAC Ilex corlacea 1 7.1% **FACW** <sup>1</sup> Indicators of hydric soil and wetland hydrology must 3. Magnolla virginiana 2 14.3% FACW be present, unless disturbed or problematic. Morella cerifera 4. 1 7.1% FAC Definition of Vegetation Strata: \_\_\_0 5. 0.0% 0\_ Tree - Woody plants, excluding woody vines, 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 7 20% of Total Cover: 2.8 = Total Cover 14 (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: , 30 m ) Sapling - Woody plants, excluding woody vines, 1. Arundinaria tecta 5 **Y** 26.3% **FACW** approximately 20 ft (6 m) or more in height and less 2. Lygodium japonicum 10 52.6% FAC than 3 in. (7.6 cm) DBH. 1 3. Pteridium aquilinum 5.3% **FACU** Sapling/Shrub - Woody plants, excluding vines, less 3 4. Eupatorium capilifolium 15.8% **FACU** than 3 in. DBH and greater than 3.28 ft (1m) tall. 5.\_\_ 0.0% 6.\_\_\_\_\_0 0.0% Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 10. 0.0% plants, except woody vines, less than approximately 3 ft (1 m) in height. 11. 0.0% 12. 0.0% Woody vine - All woody vines, regardless of height. 20% of Total Cover: 3.8 19 50% of Total Cover: 9.5 = Total Cover Woody Vine Stratum (Plot size: 30 m Vitis rotundifolia 75.0% FAC 2 Rubus argutus 1 25.0% 0 3. = 0.0% \_\_\_\_0 4. 0.0% Hydrophytic ...0 5. Vegetation Yes ● No ○ Present? 2 20% of Total Cover: 0.8 = Total Cover 50% of Total Cover: Remarks: (If observed, list morphological adaptations below). \*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Dominant

Profile Descr	iption: (De:	scribe to	the depth	needed to d	ocument	the indic	cator or co	onfirm the	absence of indicato	rs.)	
Depth		Matrix			Re	dox Featı					
(inches)	Color (		%	, Çolor (ı	moist)	%	Type 1	Loc2	Texture	Remarks	
0-3	10YR	3/2	100				7				
3-8	10YR	4/2	100			-			Loamy Sand		
8-16	10YR	4/3	90	10YR	5/6	10	Ç	M	Loamy Sand	rusty brown mottling/red in lower section of test	
Type: C=Cond		=Depletio	n. RM=Redu	ıced Matrix, C	S=Covere	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loca	tion: PL=Pore Lining.	M=Matrix  Problematic Hydric Soils <sup>3</sup> :	
Histosol (				Poly	value Belo	ow Surface	(S8) (LRR	S, T, U)	1 cm Muck (		
Histic Epip	edon (A2)			Thin	Dark Sur	face (S9) (	(LRR S, T, I	U)	2 cm Muck (		
Black Histi	` '			Loar	ny Mucky	Mineral (F	1) (LRR 0)	)	Reduced Ver	tic (F18) (outside MLRA 150A,B)	
_ ' -	Sulfide (A4)			Loar	ny Gleyed	l Matrix (F2	2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratified Layers (A5)			_ `	leted Matr				Anomalous Bright Loamy Soils (F20) (MLRA 153B)			
Organic Bodies (A6) (LRR P, T, U)			Redox Dark Surface (F6)					Red Parent Material (TF2)			
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U) ☐ 1 cm Muck (A9) (LRR P, T)			Depleted Dark Surface (F7) Redox Depressions (F8)					<ul><li>☐ Very Shallow Dark Surface (TF12)</li><li>☐ Other (Explain in Remarks)</li></ul>			
			111		(F10) (LF	-					
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)			Depleted Ochric (F11) (MLRA 151)								
_			1504)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)							
Coast Prairie Redox (A16) (MLRA 150A)			Umbric Surface (F13) (LRR P, T, U)				)				
Sandy Muck Mineral (S1) (LRR O, S)			☐ Delta Ochric (F17) (MLRA 151)				4500	<sup>3</sup> Indicators of hydrophytic vegetation and			
Sandy Gleyed Matrix (S4)			Reduced Vertic (F18) (MLRA 150A, 150B)				-	wetland hydrology must be present, unless disturbed or problematic.			
Sandy Redox (S5) Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A)								
	iaurix (S6) ice (S7) (LRR	P, S, T,	J)	∟ Anoi	malous Br	ight Loamy	y Soils (F20	)) (MLRA 149	9A, 153C, 153D)		
estrictive La	yer (if obse	erved):								·	
Type:					-			Hydric Soil Prese	nt? Yes O No 💿		
Depth (inch	ies):			N 1 - N - 1 - 2 - 2		-			-	103 0 110 0	
Remarks:											
egin to have	some mott	ling in lo	wer portio	n of test pit	(>12-in	ches) as	clay conte	ent begins	to increase.		

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation  Applicant/Owner: NASA  Investigator(s): Lars Larson, Randy Ellis  Landform (hillslope, terrace, etc.): Hillside  Subregion (LRR or MLRA): LRR T Lat.:  Soil Map Unit Name: EsA, Escambia loam, 0 to 2 percent slopes	City/County:         Waveland - Hancock         Sampling Point:         Up - 18           Section, Township, Range:         \$ 29         T 7 s         R 16 W           Local relief (concave, convex, none):         \$ Slope:         1.0 % / 0.6 °           30° 24' 45.183" N         Long.:         89° 37' 38.549" W         Datum:         NAD83           NWI classification:         N/A
Are Vegetation , Soil , or Hydrology naturally SUMMARY OF FINDINGS - Attach site map showing sa Hydrophytic Vegetation Present? Yes No	problematic? (If needed, explain any answers in Remarks.)  ampling point locations, transects, important features, etc.  Is the Sampled Area
Hydric Soil Present?  Wetland Hydrology Present?  Remarks: Hillslope approximately 30 to 40 feet up from draiange way (ephem	within a Wetfand? Yes No   No   neral stream) that runs south toward Turtle Skin Creek.
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) Aquatic Fauna (B1)  High Water Table (A2) Marl Deposits (B1)  Saturation (A3) Hydrogen Sulfide  Water Marks (B1) Oxidized Rhizosph  Sediment Deposits (B2) Presence of Redu	Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Odor (C1)  Moss Trim Lines (B16)  heres along Living Roots (C3)  Dry Season Water Table (C2)  Ided Iron (C4)  Crayfish Burrows (C8)  Juction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photo Remarks:	Wetland Hydrology Present? Yes ○ No ④

VEGETATION (Five/Four Strata) - Use scientific names of plants.

Dominant
Species?

1. Pinus ellottisi 2. Nyssa sylvatica 3. Quercus faicata 4.	Number of Dominant Species That are OBL, FACW, or FAC:  Total Number of Dominant Species Agrees All Charles		
Nyssa sylvatica   S	Total Number of Dominant		
3. Quercus falcata 4.			
4.     0	Engling Agrees All Chrotes C (D)		
5.   0	Species Across All Strata: 6 (B)		
0	Percent of dominant Species		
0	That Are OBL, FACW, or FAC: 100.0% (A/B)		
Some of Total Cover:   8   20% of Total Cover:   3.2   16   = Total Cover			
Sapling or Sapling / Shrub Stratum   Plot size: 30 m   Name of the plot size: 30 m   Name of t	Prevalence Index worksheet:		
Pinus elliotti    10     55.6%   FACW   FA	Total % Cover of: Multiply by:		
Pinus elliottii	BL species $0 \times 1 = 0$		
Nyssa sylvatica	ACW species $\underline{74}$ x 2 = $\underline{148}$		
Nagnolla virginiana	AC species $20 \times 3 = 60$		
Magnolia virginiana	ACU species $1 \times 4 = 4$		
Quercus nigra	PL species $0 \times 5 = 0$		
0	olumn Totals: 95 (A) 212 (B)		
	Prevalence Index = B/A = 2.232		
Solution	lydrophytic Vegetation Indicators:		
50% of Total Cover: 9 20% of Total Cover: 3.6 18 = Total Cover    Shrub Stratum   (Plot size: 30 m   )	David Tank Say Hadaaa la Marketan		
Shrub Stratum   (Plot size: 30 m   )	1 - Rapid Test for Hydrophytic Vegetation		
Ilex coriacea	2 - Dominance Test is > 50%		
Ilex vomitoria	<b>☑</b> 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
1   2.0%   FAC   1   b   b   b   b   b   b   b   b   b	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
Liquidambar stvracifiua			
Liquidambar stvracifiua	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
1	be present unless disturbed or problematic.		
50% of Total Cover: 24.5 20% of Total Cover: 9.8 49 = Total Cover  Herb Stratum (Plot size: )  1. Ilex coriacea 10	Definition of Vegetation Strata:		
Herb Stratum (Plot size:   )	Free - Woody plants, excluding woody vines,		
Herb Stratum	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
1   Ilex corlacea   10	7.0 dily of larger in diameter at bleast neight (DDIT).		
2 Arundinaria tecta  1	Sapling - Woody plants, excluding woody vines,		
3.	approximately 20 ft (6 m) or more in height and less		
4. 0 0 0.0% 5. 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 9. 0 0.0% 1. 0 0.0% 1. 0 0.0% 2. 0 0.0% 50% of Total Cover: 5.5 20% of Total Cover: 2.2 11 = Total Cover  Woody Vine Stratum (Plot size: 30 m  Smilax rotundifolia 1 0.0% FAC 0 0.0%	han 3 in. (7.6 cm) DBH.		
5. 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 1. 0 0.0% 1. 0 0.0% 2. 0 0.0% 2. 0 0.0% 50% of Total Cover: 5.5 20% of Total Cover: 2.2 11 = Total Cover  Woody Vine Stratum (Plot size: 30 m) Smillax rotundifolia 1 100.0% FAC 0 0.0%	Sapling/Shrub - Woody plants, excluding vines, less		
6.	han 3 in. DBH and greater than 3.28 ft (1m) tall.		
7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 1. 0 0.0% 2. 0 0.0% 2. 0 0.0% 50% of Total Cover: 5.5 20% of Total Cover: 2.2 11 = Total Cover  Woody Vine Stratum (Plot size: 30 m  Smilax rotundifolia 1 100.0% FAC 0 0.0%			
8. 0 0.0% 9. 0 0.0% 1. 0 0.0% 1. 0 0.0% 2. 0 0.0% 50% of Total Cover: 5.5 20% of Total Cover: 2.2 11 = Total Cover  Woody Vine Stratum (Plot size: 30 m  Smillax rotundifolia 1 100.0% FAC 0 0.0%	Shrub - Woody plants, excluding woody vines,		
9. 0 0.0% He he plants of the	pproximately 3 to 20 ft (1 to 6 m) in height.		
0.	All hautananana (mamananana)		
0.       0       0.0%       plant         1.       0       0.0%       31         2.       0       0.0%       W         50% of Total Cover:       5.5       20% of Total Cover:       2.2       11       = Total Cover         Woody Vine Stratum (Plot size: 30 m)         Smilax rotundifolia       1       100.0%       FAC         0       0.0%	lerb - All herbaceous (non-woody) plants, including erbaceous vines, regardless of size, and woody		
1.	lants, except woody vines, less than approximately		
2.       0       0.0%         50% of Total Cover:       5.5       20% of Total Cover:       2.2       11       = Total Cover         Woody Vine Stratum (Plot size: 30 m )         Smllax rotundifolia       1       100.0% FAC         0       0.0%	ft (1 m) in height.		
Woody Vine Stratum (Plot size: 30 m )			
Smilax rotundifolia         1         □ 100.0% FAC           0         □ 0.0%	Voody vine - All woody vines, regardless of height.		
Smllax rotundifolia         1         □ 100.0% FAC           0         □ 0.0%			
0 0.0%			
0 0.0%			
C U 0.0%	Hydrophytic		
),	Vegetation		
50% of Total Cover: 0.5 20% of Total Cover: 0.2 1 = <b>Total Cover</b>	Present? Yes No O		
temarks: (If observed, list morphological adaptations below).			

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Profile Description: (Descri	be to the depth n	eeded to document	the indicator or	confirm the	absence of indicators.	
Depth Matrix		**	lox Features	1		
(inches) Color (moi		Color (moist)	% Type	Loc2	Texture	Remarks
0-4 10YR	4/2 100	. 4 1			Loamy Sand	
4-16 10YR	5/6 100			-	Loamy Sand	
1 Type: C=Concentration. D=De  Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR F  5 cm Mucky Mineral (A7) (I  Muck Presence (A8) (LRR R	P, T, U) LRR P, T, U)	Polyvalue Belo	w Surface (S8) (Li face (S9) (LRR S, T Mineral (F1) (LRR Matrix (F2) ix (F3) urface (F6) Surface (F7)	RR S, T, U) T, U)	1 cm Muck (A9) 2 cm Muck (A10 Reduced Vertic Piedmont Flood Anomalous Brigi Red Parent Mate	blematic Hydric Soils <sup>3</sup> :  (LRR O)  () (LRR S)  (F18) (outside MLRA 150A,B)  clain Soils (F19) (LRR P, S, T)  th Loamy Soils (F20) (MLRA 153B)  crial (TF2)  irk Surface (TF12)
1 cm Muck (A9) (LRR P, T)     Depleted Below Dark Surface     Thick Dark Surface (A12)     Coast Prairie Redox (A16) (     Sandy Muck Mineral (S1) (L     Sandy Gleyed Matrix (S4)     Sandy Redox (S5)     Stripped Matrix (S6)     Dark Surface (S7) (LRR P, S	ce (A11) (MLRA 150A) RR O, S) S, T, U)	Marl (F10) (LR Depleted Ochri Iron-Manganes Umbric Surface Delta Ochric (F Reduced Vertic		.RR O, P, T) U) A, 150B) (MLRA 149A)	<sup>3</sup> Indicator: wetland unles	s of hydrophytic vegetation and hydrology must be present, is disturbed or problematic.
Type:			-		Hydric Soil Present?	Yes ○ No •
Depth (inches):			with the second		•	- 110 -

Project/Site: NASA - Stennis; 1,100 Acre Wetland Delineation	City/County: Waveland - Hancock Sampling Date: 18-Oct-16
Applicant/Owner: NASA	State: MS Sampling Point: Up - 19
Investigator(s): Lars Larson, Randy Ellis	Section, Township, Range: S 29 T 7s R 16 W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR T Lat.:	30° 24' 42.673" N Long.: 89° 37' 2.692" W Datum: NAD83
Soil Map Unit Name: HIB, Harleston fine sandy loam, 2 to 5 percent sl	opes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of ye	ar? Yes  No (If no, explain in Remarks.)
	tly disturbed? Are "Normal Circumstances" present? Yes   No O
Are Vegetation . , Soil . , or Hydrology . naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	impling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No O	To the Complet Aven
Hydric Soil Present? Yes O No	Is the Sampled Area
Wetland Hydrology Present? Yes O No	within a Wetland?
Remarks:	
Sideslope of natural ridge leading up to railspur 70 to 80-feet to nor	th.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Mari Deposits (B1	5) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide	Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizosph	neres along Living Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Redu	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	e (C7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in I	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:	
Surface Water Present? Yes No Depth (inches):	·
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes O No
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ◎
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
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