whlh001s_w

WEILAND DETERMINATION DATA FORM	M – Atlantic and Gulf Coastal Plain Region
Project/Site: Southeastern Reliability City/Ci	ounty: Hali fax Sampling Date: 7-7-2014
Applicant/Owner: Dominion	State: NC Sampling Point: whlh001s_w
Investigator(s): DDWEST Section	n, Township, Range:
Landform (hillslope, terrace, etc.): Do pression Local	relief (concave, convex, none):(SVC) & Slope (%):
Hydric Soil Present? Yes No	Is the Sampled Area
Wetland Hydrology Present? Yes No No	within a Wetland? Yes No
Man made depression	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is 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) (LRF	
Saturation (A3) Hydrogen Sulfide Odor (C	
Water Marks (B1)	
Sediment Deposits (B2) Presence of Reduced Iron	n (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
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):	
1	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre-	vious inspections), if available:
Remarks:	
Nemarks.	
D burous depressional	orea.

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

		Absolute	Dominant	Indicator	Dominance Test worksheet:
e Stratum (Plot size:			Species?		Number of Dominant Species
					That Are OBL, FACW, or FAC: (A)
					Total Number of Dominant
	<u> </u>				Species Across All Strata: (B)
					Percent of Dominant Species
					That Are OBL, FACW, or FAC: (A/B)
					Prevalence Index worksheet:
					Total % Cover of: Multiply by:
					OBL species x 1 =
			= Total Cov		FACW species x 2 =
	% of total cover:	20% of	total cover	:	FAC species x 3 =
ling/Shrub Stratum (Plot size:)		1		FACU species x 4 =
Aver negundo					UPL species x5 =
Fraxinis peni	15 ylvanier	120		FACW	
					Column Totals: (A) (B)
					Prevalence Index = B/A =
					Hydrophytic Vegetation Indicators:
					1 - Rapid Test for Hydrophytic Vegetation
					2 - Dominance Test is >50%
					3 - Prevalence Index is ≤3.01
	11.5		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50%	% of total cover: 4	20% of	total cover	: 10	Committee of the Control of Control of the Control
b Stratum (Plot size:		,	,		¹ Indicators of hydric soil and wetland hydrology must
Boehmerta		_5_	$\overline{}$	FACE	be present, unless disturbed or problematic.
					Definitions of Four Vegetation Strata:
					Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
					more in diameter at breast height (DBH), regardless of
					height.
					Sapling/Shrub - Woody plants, excluding vines, less
					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
					Herb - All herbaceous (non-woody) plants, regardless
					of size, and woody plants less than 3.28 ft tall.
					Woody vine - All woody vines greater than 3.28 ft in
					height.
		5	= Total Cov	/er	
50%	% of total cover: 2,5	20% of	total cover	::	
ody Vine Stratum (Plot size:)				
					Hydrophytic /
			= Total Cov	ver	110
50%	% of total cover:				Present? Yes No
marks: (If observed, list morphole					La company of the com
2					*
Regenerat	ine box	0/10	r an	Q as	ean ash
20,00		_	•	3	car coar.
				\circ	

Profile Description: (Describe to the depth needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type¹ Loc²	Texture Remarks
0-2 7.5 YR 5/3 10 YR 5/6 720 C M	Clay totan
2-14+ 7.5 YR 5/3 DYR 5/6+5/8 725 C M	clay loan
	<u> </u>
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U	
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) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	☐ Piedmont Floodplain Soils (F19) (LRR P, S, T) ☐ Anomalous Bright Loamy Soils (F20)
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U)	Under (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR 0, P,	T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14 Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR	[1] "마루크 프라크 - 다른 1. 전도 2년 학생 회원 1명 (1)
☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F20) (MLR. Dark Surface (S7) (LRR P, S, T, U)	A 149A, 153C, 153D)
Restrictive Layer (if observed):	
Type: Argillic horizon	
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	
	0 11
Over 20% donotinet + promine	nt mothes
Over 20% distinct + promine in top \$ 10" & soil sur	
in top # 10" & soil sur	TIACE.
	9



whlh001s_w Facing North Shrub Wetlands



whlh001s_w – Facing East | scrubshrub Wetlands

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Sampling Date: 7-7-2012 _ Sampling Point: WHU Applicant/Owner: Investigator(s): Section, Township, Range: _ Local relief (concave, convex, none): Landform (hillslope, terrace, etc.): Subregion (LRR or MLRA): KINET TIEW Soil Map Unit Name: NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) __, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? No Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is 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) Moss Trim Lines (B16) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction 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 Remarks) Shallow Aguitard (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? Depth (inches): Water Table Present? Depth (inches): Wetland Hydrology Present? Yes ____ Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No Lydrology indicators present

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

Sampling Point: WHLIH 001

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1)	-30-10-10-10-10-10-10-10-10-10-10-10-10-10	Species?		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species x 1 =
50% of total cover:	20% of	total cover		FACW species x 2 =
Sanling/Shruh Stratum (Plot size:		/		FAC species x 3 =
1. Frer regundo	900	\checkmark	FAC	FACU species x 4 =
2. TOFFAXINUS DENNSYLVA			FAVE	∫ UPL species x 5 =
3.	DE A			Column Totals: (A) (B)
4		Samuel Comp.		Provolence Index: - B/A -
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.			-	2 - Dominance Test is >50%
0	TAD	= Total Cov		3 - Prevalence Index is ≤3.01
50% of total cover: _ 57	2000	total cover		Problematic Hydrophytic Vegetation¹ (Explain)
111/1/19 10 10 10 10 10 10 10 10 10 10 10 10 10	20% 01	total cover		
Herb Stratum (Plot size:)				¹Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in, DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9		-		of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov	ver	
50% of total cover:	20% of	total cover	;	
Woody Vine Stratum (Plot size:	_	/		
1. Smilex rotunditolia		$\overline{}$	FAC	
2				
3				
4				
5				Hydrophytic
	5_	= Total Cov	ver .	Vegetation
50% of total cover; 2. S	20% 0	f total cover	:	Present? Yes _/_ No
Remarks: (If observed, list morphological adaptations belo	THE PERSON NAMED IN		111	L
		_		
Regenerating be	x dd	Der-	thec	eet

Sampling Point: WHLH ON I

Profile Description: (Describe to the de	oth needed to document the indicator or confirm	the absence of indicators.)
DepthMatrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Remarks
0-2 7.54R4H4		Sandy lown
2-10 754R 514		5xx loom
IN +14+7 CYRSIL		oma, chy bum
10/11/15/15/16		and come of the
<u> </u>		
	·	
17 00 10 00 00 00 00 00 00 00 00 00 00 00		
Hydric Soil Indicators: (Applicable to all	=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
1 <u>J.E.</u>		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U	248 - [1] (Hann) [2] [1 (1 (2 (2)) [1 (3 (2)) [2 (2)] [2 (2)] [3 (2)] [3 (2) (2 (2)) [3 (2)]
Histic Epipedon (A2) Black Histic (A3)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2)	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)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U	Table 1	Red Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	of the second Control of the Area to a recommendation of the Control of the Contr
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P,	 Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150	엄마나 그는 그는 그는 그는 그들은 아이를 가는 것이 없었다. 그렇게 되었다면 하는 것이 없는 것이 없는데 없는데 없었다면 하는데 없다면 하는데 없었다면 하는데 없다면 하는데 없었다면 하는데 없다면	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)		unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14	
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLR)	A 149A, 153C, 153D)
Dark Surface (ST) (I PR P S T II)		
Dark Surface (S7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
Restrictive Layer (if observed): Type:		V
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	- Drie soil indicate	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		
Restrictive Layer (if observed): Type: Depth (inches): Remarks:		



WHLH001_u - Facing South Adjacent Uplands



WHLH001_u – Facing West Adjacent Uplands

whlh001 soils



Wetland/upland soils

WHLH002F_W

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region Project/Site: Sampling Date: Sampling Point: WHL Applicant/Owner: Investigator(s): Section, Township, Range: _ Slope (%): Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): 512 Subregion (LRR or MLRA): Datum: NWI classification Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) _, Soil _____, or Hydrology __ Are "Normal Circumstances" present? Yes __ significantly disturbed? Are Vegetation ____ __, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is 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 Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Shallow Aquitard (D3) Iron Deposits (B5) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches) Wetland Hydrology Present? Yes Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Obvious towlying bottom hone

VEGETATION (Four Strata) – Use scientific na	mes of plants.		Sampling Point:
	Absolute Dominan	t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species		Number of Dominant Species
1. Heer rubrum	40 /	FAC	That Are OBL, FACW, or FAC: (A)
2. Fraxines pennsylvanica	77) V	FAXW	
3. Liguidantour Styracilla	30 1	FAC	Total Number of Dominant
3. Dynamare signacino	120	1710	Species Across All Strata:(B)
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: (A/B)
6			
7			Prevalence Index worksheet:
8			Total % Cover of: Multiply by:
·	91) = Total Co		OBL species x 1 =
/10			FACW species x 2 =
50% of total cover: 45	20% of total cove	r: 10	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	10 1	-n-	FACU species x 4 =
1. Acar man, rubrum	\/	FAC	
2. Lynidom bor styracione	\sim		UPL species x 5 =
3. Lightrum sinense	2	FACY	Column Totals: (A) (B)
, J			Provolonce Index: = D/A =
4			Prevalence Index = B/A =
5			Hydrophytic Vegetation Indicators:
6			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
8			3 - Prevalence Index is ≤3.01
	= Total Co	over ,	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 😤 🔇	20% of total cove	r. 3.4	Troblemate rydrophytic vegetation (Explain)
		/	1
1. Dulichium orundinace	m 35 V/	OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	() J	OBL	
2. Saurus cerna	10		Definitions of Four Vegetation Strata:
3. Boehmerjarylmonca			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Carex intumoscens	10	FAQU	more in diameter at breast height (DBH), regardless of
5			height.
6.			Sapling/Shrub – Woody plants, excluding vines, less
			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7			,
8			Herb – All herbaceous (non-woody) plants, regardless
9			of size, and woody plants less than 3.28 ft tall.
10			Woody vine - All woody vines greater than 3.28 ft in
11			height.
12			
	8D = Total Co	over	
50% of total cover:	20% of total cove	11	
Southern March 1980 - 1980 - 10 And The Control of	20 % of total cove		
Woody Vine Stratum (Plot size:	\prec	FAC	
1. Smaky votanditolia	\sim		
2			
3			
4			
5.			Hydrophytic
	5 = Total Co	over .	Vegetation
50% of total cover: 2.5			Present? Yes No
	20% of total cove	r	
Remarks: (If observed, list morphological adaptations belo	w).		

Sampling Point: WALH 002

Profile Description: (Describe to the depth needed to document	nt the indicator or co	nfirm the absence of indicators.)
Depth Matrix Redox Fe	eatures	
Color (moist) % Color (moist) 7-4 7-54R4/4 NOVR 4/6	% Type¹ Lo	
	- 2	1 some lorn
4-12+7.5 YR 5/3 LOVR 5/18 7	720 c r	n SCL
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=M		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwis		Indicators for Problematic Hydric Soils ³ :
	v Surface (S8) (LRR S ce (S9) (LRR S, T, U)	
	fineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Loamy Gleyed M		Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix	(F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surf		(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark S	No. 17.	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Redox Depression Marl (F10) (LRR		 ✓ Very Shallow Dark Surface (TF12) ✓ Other (Explain in Remarks)
[(F11) (MLRA 151)	Otter (Explain in Nemarks)
를 하는 모든 경험하다 경에 가입하다는 다른 사람들이 되었다. 그런 사람들이 되었다면 보고 있다면 보다	Masses (F12) (LRR	O, P, T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface ((F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F1)	[2] 10 [4] [4] [4] [4] [4] [4] [4] [4] [4] [4]	unless disturbed or problematic.
	(F18) (MLRA 150A, 1	
	plain Soils (F19) (MLF	(MLRA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)	in Loanly Cons (1 20)	(INE 140A, 1666, 1666)
I I Louis Guilace 10// LENK F. J. I. UI		
Restrictive Layer (if observed):		/
Restrictive Layer (if observed):		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type:		Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	0 -	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	dical	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	dical	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	dieal	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	die al	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oreal Upper	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	die al	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	dical Upper	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	die D Upper	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oreal	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oveal	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dread	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dreat	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Over	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oreal	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dread	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dieal Upper	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dread	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Dreat	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oveal	
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Oreal	

whlh002f_w



 $WHLH002F_w-Facing\ North\ Forested\ Wetlands$



WHLH002F_w – Facing East Forested Wetlands

WETLAND DETERMINATION DATA I	FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: SE. Roliability	City/County: Hall Fax Sampling Date: 7-7-2
Applicant/Owner: Dominion	State: NC Sampling Point: WWLH
Investigator(s): DDWEST	Section, Township, Range:
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): Lat: 36°-	24'59.469 Long: 77°33' 45.41Z Datum:
Soil Map Unit Name: Che wacala lorm	
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: No X No X No X No X Present Yes No X No X No X Remarks:	Is the Sampled Area within a Wetland? Yes No No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	
High Water Table (A2) Saturation (A3) Hydrogen Sulfide C	
	eres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4)
	tion 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	5
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? Yes No Depth (inches) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
No hydrohoge	s indicators present
	}

/CCETATION	/F	Chantal	lles saisutts	
VEGETATION	(Four	Strata) -	Use scientific	names of plants.

	W	H	LH	00	2
Sampling P	oint: _	111/1		. , 1	8

Tree Stratum (Plot size:) 1. Acer negunds 2. Celtis laevignata 3 4 5 6 7 8 50% of total cover: 37.5	% Cover 50 25	= Total Cov	Status FAC FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species X 1 = FACW species X 2 =
Sapling/Shrub Stratum (Plot size: 1. Ligustrum, Sinense 2. Astroia Trilopa 3. Colfis kievianta 4. Acer regundo 5. Ligustampar styracilia	30 15 10 30		FACU FACU FAC FAC	FAC species
8	90 20% of 30 15	= Total Cover total cover	FACW	3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
11	20% of 20% of 7		FAC FAC	Hydrophytic Vegetation Present? Yes No

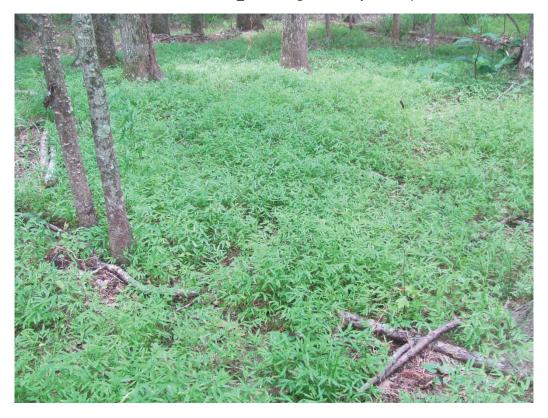
Sampling Point: WHLH 002 cators.)

Profile Description: (Describe to the depth needed to document the indicator of	r confirm the absence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹	<u> </u>
D-3 104 R 4/3	Sandyloam
3-8 754R514	50 LOAM
8-15+754R 516	Frank (lay boom
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Gra	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LI Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, 7)	
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR S, 7) Loamy Mucky Mineral (F1) (LRR	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 15	Other (Explain in Remarks)
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (L	The state of the s
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T,	
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150	ACC CONTRACTOR CONTRAC
Sandy Redox (S5) Piedmont Floodplain Soils (F19)	[1] [12] [12] [12] [12] [12] [13] [13] [13] [13] [13] [13] [13] [13
☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F	20) (MLRA 149A, 153C, 153D)
Restrictive Layer (if observed):	
Type:	2
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	Hydric Soil Flesent? Tes Ho
Remarks.	
10-10-00	Indicators present
No manc sol	(Marcadors passed)
	,

whlh002_u



WHLH002_u – Facing South Adjacent Uplands

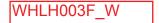


WHLH002_u – Facing West Adjacent Uplands

whlh002



WHLH002 – Representative Wetland and Upland Soils



WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Applicant/Owner: DOWES Investigator(s): Section, Township, Range: _ Local relief (concave, convex, none): _____ COn Claud Slope (%): Landform (hillslope, terrace, etc.): 36°24' 33.173 Long: \$ 77°34 Subregion (LRR or MLRA): v boan Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) , Soil ____, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation ____ __, Soil ____, or Hydrology ___ ___ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is 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 Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction 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 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? Depth (inches): Water Table Present? Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: low lying bottom/ome

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

Sampling Point: WHLH OD3

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. Quercus paginda	35	1/	FROM	
2. Arer rubrum.	ZIA	T.	PAC	M1 10000 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
3. Fraxinus pennsylvanica	20	7	Place	Total Number of Dominant
s. Thatian perinsyrvanica			LECT	Species Across All Strata: (B)
4				Percent of Dominant Species QQ
5				That Are OBL, FACW, or FAC: (A/B)
6				
7			1	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	GR			OBL species x 1 =
Un		= Total Cov	1/	FACW species x 2 =
50% of total cover: 27.	<u>)</u> 20% of	total cover:	11	
Sapling/Shrub Stratum (Plot size:)	_	/		FAC species x 3 =
1. Acer rubun	5	V	FAX	FACU species x 4 =
2. Fraxinus pannsy y ponea	3	1	FAW	UPL species x 5 =
3. Laustrum sinense	-5		ENCL	Column Totals: (A) (B)
			IHU	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				
AME AND A STATE OF THE STATE OF				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
7 -		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 7.5	20% of	total cover	: —	
Herb Stratum (Plot size:)		/		¹ Indicators of hydric soil and wetland hydrology must
1. Dulchnyn prundinacon	15		DBI.	be present, unless disturbed or problematic.
2. Carex intumescens		1/	FACW	Definitions of Four Vegetation Strata:
			FACIL	
3. (crex gray)			FINA	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Boehnerra cylindrica			FREW	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12.				
	45	= Total Cov	/er o	
50% 56454 77				11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
50% of total cover:	20% 0	f total cover		
Woody Vine Stratum (Plot size:)				
1				
2	-			
3				
4				Fe/Sc Sc 1955 (200) 1007 E8
5				Hydrophytic
		= Total Cov	/er	Vegetation Present? Yes No
50% of total cover:	20% o	f total cover	:	Present? res No
Remarks: (If observed, list morphological adaptations belo	ow).			
The second seco				

Sampling Point: WHLH 003

Profile Desc	cription: (Describe t	to the depth needed to doc	ument the in	dicator	or confirm	the absence of indicators.)
Depth	Matrix		dox Features			
(inches)	Color (moist)	Color (moist)	%	Type ¹	_Loc ² _	Texture Remarks
0-3	7.54R4/4					3. Ondylorm
3-12+	7.57R5/3	104R 4/8	720	(m	SCL
		· 				
		\$			-	
						<u>Co </u>
						AA AAAAA AA AAAAA AA AAAAA AA AAAAA AA
17						21 21 21 21 21 21 21 21 21 21 21 21 21 2
		letion, RM=Reduced Matrix, able to all LRRs, unless oth		_	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		THE CONTRACTOR OF THE PROPERTY OF THE			DD 0 T 11	
Histosol	oipedon (A2)		Below Surfac Surface (S9)			1)
1 1	istic (A3)	part of the second seco	cky Mineral (I	North Committee (C		Reduced Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	=	eyed Matrix (F	5 17 70	. 0)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
1 = -	d Layers (A5)	Depleted N		-,		Anomalous Bright Loamy Soils (F20)
June	Bodies (A6) (LRR P,		k Surface (F6	3)		(MLRA 153B)
5 cm Mu	ucky Mineral (A7) (LR		Dark Surface			Red Parent Material (TF2)
Muck Pi	resence (A8) (LRR U)	Redox Dep	oressions (F8)		Very Shallow Dark Surface (TF12)
- D. Crime estate	uck (A9) (LRR P, T)	☐ Marl (F10)	10 Ph 100 Ph 10 4 10			U Other (Explain in Remarks)
	d Below Dark Surface		Ochric (F11) (•	- 3
	ark Surface (A12)		anese Masse	200		
	rairie Redox (A16) (N	이 시민이 아이들은 그를 그림을 하는데 되었다.	rface (F13) (L		, u)	wetland hydrology must be present,
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	·	ric (F17) (MLF /ertic (F18) (N		0A 150B)	unless disturbed or problematic.
1	Redox (S5)		Floodplain So			a
	Matrix (S6)				•	A 149A, 153C, 153D)
	rface (S7) (LRR P, S	and the state of t		., (, (, , , , , , , , , , , , , , , , , , , ,
	Layer (if observed):					
Type:	. The last control of the control of					~/
	ches):					Hydric Soil Present? Yes No
Remarks:			+			
		a v. v.				
	- 220) 111	200	, r	.	soil surface
	1200	o mother	In	W	per	3600
				1	6	
İ						



 $WHLG003F_w-Facing\ North\ Forested\ Wetland$



WHLG003F_w – Facing East Forested Wetland

WETLAND DETERMINATION DATA FOR	M – Atlantic and Gulf Coastal Plain Region
Project/Site: SE Reliability City/C	County: Hali Sax Sampling Date: 7-7-2
Applicant/Owner: Donuncon	State: NC Sampling Point: WHLH
	on, Township, Range:
	relief (concave, convex, none):Slope (%):
Subregion (LRR or MLRA): Lat: 36°24	1'33,596Long: 71°34'07.697 Datum:
Soil Map Unit Name: State Line Somer long	m 2-6% NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturb	bed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	ppling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks: Not all three parp met	ters met.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C	그 그래 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그
Water Marks (B1) Oxidized Rhizospheres a	
Sediment Deposits (B2)	
Drift Deposits (B3)	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	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	☐ Sphagnum moss (D8) (LRR T, U)
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Describe	
Remarks: No hydrohoge	indicators present

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

Sampling Point: WHLH 003

	Absolute Dominant India	cator Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Sta	[10] [10] [10] [10] [10] [10] [10] [10]
1. Querus pagoda	40 V F	ACW That Are OBL, FACW, or FAC: (A)
2. Ligandamon Styracitua	30 V F	AC Forthern Comment
3. Phus tooda	.5 F.	Total Number of Dominant Species Across All Strata: (B)
	3	- Substitution of the second contract to the second contract of the
1 - 0		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		That Ale OBL, FACW, of FAC. (A/B)
7		Prevalence Index worksheet:
8		Total % Cover of: Multiply by:
0.	RO = Total Cover	OBL species x1 =
50% of total cover:	30% of total anyon	FACW species x 2 =
	20% of total covery	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)	75 // 5	ACW FACU species x 4 =
1. Jex decidua		(100 UPL species x 5 =
2. Ligustrym sinonse	- AC V F	Pac Column Totals: (A) (B)
3. Liguidantos Styrae, su		<u></u>
4. Ulmis alata	10 - 41	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.01
75	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 32.	5 20% of total cover:	3 -
Harb Chartons (Distraines	_	¹ Indicators of hydric soil and wetland hydrology must
1. Microstegium Vimineu	5 VE	be present, unless disturbed or problematic.
2		Definitions of Four Vegetation Strata:
3.		
4		1100 - VOOdy plants, excluding vines, o in. (7.0 cm) of
5		height.
6		Carling/Charle Mandy plants evaluating visce lass
		then O in DDI I and are store than O OO A (4 ms) tall
7		
8		
9		of size, and woody plants less than 5.20 it tall.
10.		Woody vine – All woody vines greater than 3.28 ft in
11.		height.
12.	76	
	Total Cover	<u> </u>
50% of total cover:	20% of total cover:	2
Woody Vine Stratum (Plot size:)	K / F	inc
1. Khus ipdicions	3	AC
2. Loucera aponica	<u> 5, V, I</u>	AC
3. UMS rotunditolia	_3/	
4		
5		— Hydrophytic
	= Total Cover _	Vegetation
50% of total cover:	20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations belo		
		1

SOIL

Sampling Point: WIACIA 003

Profile Description: (Describe to the depth needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix Redox Features	August Constitution (August August and August and August A
(inches) Color (moist) % Color (moist) % Type 1 Loc 2	Texture Remarks
0 3 1.5 N	Sanly lown
3-14, 101K 2/10	<u> </u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U	,
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) Stratified Layers (A5) Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	☐ Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	U Other (Explain in Remarks)
Thick Dark Surface (A12) Thick Dark Surface (A12) Depleted Ochilic (F11) (MERA 131) Iron-Manganese Masses (F12) (LRR O, P,	T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14 Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR	4) 121(C) C C C C C C C C C C C C C C C C C C
Dark Surface (S7) (LRR P, S, T, U)	1434, 1330, 1330)
Restrictive Layer (if observed):	
Type:	\sim
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	
	I walled tree
100 Marie Sery	Marcher 2
,	
The state of the s	
present	
	1



WHLH003_u – Facing South Adjacent Uplands



WHLH003_u – Facing West Adjacent Uplands

whlh003



WHLH003 – Representative Wetland and Upland Soils

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	City/County: Halifax	Sampling Date: 11/19/2014
Applicant/Owner: DOMINION		State: NC Sampling Point: whlc002f_w
••	Section, Township, Range: No.	
Landform (hillslope, terrace, etc.): Channel		
Cubacciae (LDD as MLDA). P	6 40345855	7 57697745 Seturn WGS 1984
Subregion (LRR or MLRA): P Lat: 3 Soil Map Unit Name: Chewacla and Wehadkee soils, 0 to 1 percentage Lat: 3	ent slopes frequently flooded	Datum: Ves 1991
Are climatic / hydrologic conditions on the site typical for this time		
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology natura	lly problematic? (If needed, e	xplain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	wing sampling point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No		
Hydric Soil Present? Yes V No	is the bampied Area	.,
Wetland Hydrology Present? Yes ✓ No		Yes No
Remarks:		
Wetland is located in a channel. The surrounding area is mappe surrounding hardwood stand. There are pools of standing water channel. Although the surrounding area may have been historically the surrounding area is mapped surrounding area.	present throughout the wetland. The	re is no clear ordinary high water mark within the
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	pply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) Aquatic Faun		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits	s (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3) ✓ Hydrogen Su		Moss Trim Lines (B16)
	zospheres along Living Roots (C3)	Dry-Season Water Table (C2)
	Reduced Iron (C4)	Crayfish Burrows (C8)
	Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck St Other (Explain		Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Till Kelliaks)	FAC-Neutral Test (D5)
✓ Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No Depth (ii	nches): 3	
Water Table Present? Yes V No Depth (ii		
Saturation Present? Yes V No Depth (ii		ydrology Present? Yes No
(includes capillary fringe)	·	
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if avail	lable:
Remarks:		
Wetland hydrology present		
The state of the s		

20	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species	
1. Acer rubrum	45	Yes	FAC	That Are OBL, FACW, or FAC: 4 ((A)
2. Liquidambar styraciflua	25	Yes	FAC		
3.				Total Number of Dominant Species Across All Strata: 4 ((B)
				Species Across Air Strata.	(ם)
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:100 ((A/B)
6					
7				Prevalence Index worksheet:	
8				Total % Cover of: Multiply by:	
	70	= Total Cove	ar	OBL species15 x 1 =15	
35			1/	FACW species0 x 2 =0	
50% of total cover:35	20% of	total cover:		FAC species 70 x 3 = 210	
Sapling/Shrub Stratum (Plot size:)				FACU species0x 4 =0	
1					
2				UPL species x 5 =	
3.				Column Totals: (A) 223	(B)
				2.04	
4				Prevalence Index = B/A =2.64	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				✓ 2 - Dominance Test is >50%	
8.					
<u> </u>	0	= Total Cove		3 - Prevalence Index is ≤3.0 ¹	
				Problematic Hydrophytic Vegetation ¹ (Explain))
50% of total cover:0	20% of	total cover:			
Herb Stratum (Plot size:5				¹ Indicators of hydric soil and wetland hydrology mu	ust
1. Dulichium arundinaceum	10	Yes	OBL	be present, unless disturbed or problematic.	
2. Carex lupulina	5	Yes	OBL	Definitions of Four Vegetation Strata:	
				John Marie Co. 1 Can Togotamon Character	
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cr	
4				more in diameter at breast height (DBH), regardles	ss of
5				height.	
6				Sapling/Shrub – Woody plants, excluding vines, lo	ess
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb – All herbaceous (non-woody) plants, regard	less
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine – All woody vines greater than 3.28 ft	t in
11				height.	
12.					
	15	= Total Cove	ar .		
50% of total cover: 7.5			_		
	20% 01	total cover:			
Woody Vine Stratum (Plot size:)					
1					
2					
3.					
4					
5				Hydrophytic	
	0	= Total Cove	er	Vegetation	
50% of total cover:0	20% of	total cover:	0	Present? Yes No No	
Remarks: (If observed, list morphological adaptations belo			·		
Remarks. (If observed, list morphological adaptations belo	w).				

SOIL Sampling Point: whlc002f_w

Profile Des	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence of i	indicators.)
Depth	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks
(inches) 0-3	2.5 Y 4/1		YR 4/6	30	C	PL/M	SIC	Remarks
3-14	2.5 Y 5/1	·	YR 3/4	40		PL/M	SIC	
3-14	2.5 1 5/1		1 T N 3/4	40				
		. _						
1- 0 0							2, ,,	
	Concentration, D=Dep Indicators: (Applic					ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
		able to all Li			•	DD C T II		•
Histoso	Epipedon (A2)		Polyvalue Be Thin Dark Su					k (A9) (LRR O) k (A10) (LRR S)
	listic (A3)		Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			,		Floodplain Soils (F19) (LRR P, S, T)
Stratifie	ed Layers (A5)		✓ Depleted Ma	trix (F3)			Anomalou	s Bright Loamy Soils (F20)
-	Bodies (A6) (LRR P		Redox Dark	•	,		(MLRA	
l '	ucky Mineral (A7) (LF		Depleted Date					nt Material (TF2)
	resence (A8) (LRR U uck (A9) (LRR P, T))	Redox Depre		0)			low Dark Surface (TF12) plain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted Ocl		(MLRA 1	51)	Outer (EX	sair in Remarko)
Thick D	ark Surface (A12)	, ,	Iron-Mangan				T) ³ Indicator	rs of hydrophytic vegetation and
	Prairie Redox (A16) (, U)		d hydrology must be present,
-	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric			0.4 450D\	unless	disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver				24)	
-	d Matrix (S6)						A 149A, 153C, 15	(3D)
	urface (S7) (LRR P, S	S, T, U)		gca.	, (_0, (
Restrictive	Layer (if observed):							
Type:			<u></u>					
Depth (ir	nches):		<u> </u>				Hydric Soil Pre	esent? Yes No
Remarks:							l	
Hydric soil pi	resent							



Photo 1
Wetland data point whlc002f_w facing north



Photo 2
Wetland data point whlc002f_w facing east



Photo 3
Wetland data point whlc002f_w facing south



Photo 4
Wetland data point whlc002f_w facing west

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	City/Coun	tv: Halifax	S	Sampling Date: 11/19/2014
Applicant/Owner: DOMINION				Sampling Point: whlc002_u
	Section, T			<u></u>
Landform (hillslope, terrace, etc.): Hill Slope				Slope (%): 5
Candionn (missope, terrace, etc.).	Local relie	er (concave, convex, r	7 57727534	Slope (%)
Subregion (LRR or MLRA): P Soil Map Unit Name: Chewacla and Wehadkee s	Lat: 00.40047721	Long:	7.57727554	None Datum: WGG 1004
Are climatic / hydrologic conditions on the site type				
Are Vegetation, Soil, or Hydrolog	y significantly disturbed	? Are "Normal	Circumstances" pre	sent? Yes No
Are Vegetation, Soil, or Hydrolog	y naturally problematic?	(If needed, e	xplain any answers	in Remarks.)
SUMMARY OF FINDINGS - Attach s	ite map showing sampli	ng point locatio	ns, transects, i	mportant features, etc.
Lindragh, tie Veretation Present?	AZ No			
	No 🗸	the Sampled Area		,
	No v	thin a Wetland?	Yes	_ No
Remarks:				
Area is mapped as a NWI wetland, but it appear	o to be drained and the ondinge	m nydrology nao rooc	ined in apparid cond.	NOTE.
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicato	rs (minimum of two required)
Primary Indicators (minimum of one is required	check all that apply)		Surface Soil Cr	acks (B6)
Surface Water (A1)	_ Aquatic Fauna (B13)		Sparsely Veget	tated Concave Surface (B8)
	_ Marl Deposits (B15) (LRR U)		Drainage Patte	rns (B10)
	_ Hydrogen Sulfide Odor (C1)		Moss Trim Line	
i i	_ Oxidized Rhizospheres along		Dry-Season Wa	
	_ Presence of Reduced Iron (C		Crayfish Burrov	
	_ Recent Iron Reduction in Tille	ed Soils (C6)		ble on Aerial Imagery (C9)
	_ Thin Muck Surface (C7)		Geomorphic Po	
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	_ Other (Explain in Remarks)		Shallow Aquita FAC-Neutral Telegraph	
Water-Stained Leaves (B9)				ss (D8) (LRR T, U)
Field Observations:			opnagnam mod	30 (B0) (ERR 1, 0)
	Depth (inches):			
	Depth (inches):			
	Depth (inches):		ydrology Present?	Yes No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, previou	is inspections), if avai	lable:	
Remarks: No wetland hydrology present				
No wetland hydrology present				

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Liquidambar styraciflua	25	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Celtis occidentalis	20	Yes	FACU	Total Number of Dominant
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 6 (B)
4. Quercus rubra	10	No	FACU	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6666666 (A/B)
				That Ale OBL, FACW, of FAC.
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	75			OBL species0 x 1 =0
37.5		= Total Cov	15	FACW species10 x 2 =20
50% of total cover: 37.5	20% of	total cover:		FAC species 55 x 3 = 165
Sapling/Shrub Stratum (Plot size: 15)				00
1. Ilex decidua	10	Yes	FACW	FACU species
2				UPL species x 5 =
3				Column Totals: (A) 423 (B)
4.				Prevalence Index = R/A = 3.4
				Trevalence index Birt
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5	20% of	total cover:	2	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	30	Yes	FACU	be present, unless disturbed or problematic.
2. Smilax rotundifolia	10	Yes	FAC	Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				neight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10		·		W • • • • • • • • • • • • • • • • • • •
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				neight.
12.	40	= Total Cov		
50% (1.1.1			^	
50% of total cover: 20	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Liverandore
o		= Total Cov		Hydrophytic Vegetation
50% of total cover:0				Present? Yes No
<u>-</u>		total cover.		
Remarks: (If observed, list morphological adaptations below	W).			

SOIL Sampling Point: whlc002_u

Depth	Matrix		h needed to docui Redo	x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-6	7.5 YR 4/3	100					SICL		
6-12	7.5 YR 4/6	100					SICL		_
					· ——				
	oncentration, D=Depl					ains.		=Pore Lining, M=	
-	Indicators: (Applica	able to all L				DD 0 T 11		Problematic Hy	aric Solis":
Histosol	i (A1) pipedon (A2)		Polyvalue Be Thin Dark Su					(A9) (LRR O) (A10) (LRR S)	
	istic (A3)		Loamy Muck						side MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			,			(F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		` ,			s Bright Loamy S	
_	Bodies (A6) (LRR P,		Redox Dark				(MLRA		
	ucky Mineral (A7) (LR		Depleted Da					nt Material (TF2)	(77.40)
	resence (A8) (LRR U))	Redox Depre Marl (F10) (L		8)			ow Dark Surface	
	uck (A9) (LRR P, T) d Below Dark Surface	- (A11)	Mail (F10) (L		(MIRA 1	51)	Other (Exp	olain in Remarks)
	ark Surface (A12)	, , , , ,	Iron-Mangan				T) ³ Indicator	s of hydrophytic	vegetation and
	rairie Redox (A16) (N	ILRA 150A	_					d hydrology must	
-	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric				unless	disturbed or prob	olematic.
	Gleyed Matrix (S4)		Reduced Ve						
-	Redox (S5)		Piedmont Flo					3D)	
	d Matrix (S6) Irface (S7) (LRR P, S	T U)	Anomalous E	origini Loa	illy Solis (-20) (IVILK <i>i</i>	A 149A, 153C, 15	30)	
	Layer (if observed):	, ,, 0,							
Type:									
•• —	ches):						Hydric Soil Pre	sent? Yes	No 🗸
	/								
Remarks:									
Remarks:	l present								
Remarks:	I present								
Remarks:	I present								
Remarks:	I present								
Remarks:	I present								
Remarks:	I present								
Remarks:	l present								
Remarks:	I present								
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Remarks:	I present								
Remarks:	I present								



Photo 1 Upland data point whlc002_u facing north



Photo 2
Upland data point whlc002_u facing east



Photo 3
Upland data point whlc002_u facing south



Photo 4 Upland data point whlc002_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Halifax	Sampling Date: 11/19/2014		
Applicant/Owner: DOMINION		State: NC Sampling Point: whlc003e_w		
	Section, Township, Range: N			
Landform (hillslope, terrace, etc.): Channel				
Subregion (LRR or MLRA): P La Soil Map Unit Name: Riverview loam, 0 to 1 percent slopes,	coasionally flooded	Datum: None		
Are climatic / hydrologic conditions on the site typical for this	·			
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? Are "Norma	l Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology na	turally problematic? (If needed,	explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing sampling point location	ons, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes <u>✓</u> No	is the Sampled Area			
Wetland Hydrology Present? Yes No		Yes No		
Remarks:				
Wetland is located in a channel. There is no clear ordinary hopen waterbody. The channel get up to three feet deep in so Beaver activity was observed throughout the area. Beaver d way as to allow a wetland to form. No flow and no ordinary h	me sections. The channel was mapped ams or additional culverts south of the c	as Mush Island Gut, a perennial NHD stream. orridor extent may have altered hydrology in such a		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all the	at apply)	Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic F		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Dep	osits (B15) (LRR U)	Drainage Patterns (B10)		
	Sulfide Odor (C1)	Moss Trim Lines (B16)		
	Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)		
	of Reduced Iron (C4) on Reduction in Tilled Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)		
	k Surface (C7)	Geomorphic Position (D2)		
	plain in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	piani in remaine)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
Field Observations:				
Surface Water Present? Yes No Dept	n (inches): 6			
Water Table Present? Yes No Dept	h (inches): 0			
Saturation Present? Yes _ V No Dept		Hydrology Present? Yes <u>✓</u> No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, as	prial photos previous inspections) if av	silahla.		
Describe Necorded Data (Stream gauge, monitoring well, as	mai priotos, previous inspections), ii ave	madic.		
Remarks:				
Wetland hydrology present				

20	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2.				
3.				Total Number of Dominant Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0			OBL species30
0		= Total Cove	Λ	FACW species 40 x 2 = 80
	20% of	total cover:		FAC species 0 x 3 = 0
Sapling/Shrub Stratum (Plot size:)				FACU species 0 x 4 = 0
1				UPL species $0 \times 5 = 0$
2				70 110
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =1.57
5				Hydrophytic Vegetation Indicators:
6				✓ 1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:0	20% of	total cover:	0	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Persicaria pensylvanica	40	Yes	FACW	be present, unless disturbed or problematic.
2. Potamogeton diversifolius	15	Yes	OBL	Definitions of Four Vegetation Strata:
3. Leersia oryzoides	15	Yes	OBL	Tree Weedy plants evaluding vines 2 in (7.6 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5.				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				
11.				Woody vine – All woody vines greater than 3.28 ft in
12.				height.
12	70	= Total Cove		
50% of total cover: 35		total cover:		
50 % Of total cover.	20% 01	total cover.		
/ 100 d) 11110 dilataini (1 100 dilataini)				
1				
2				
3				
4				
5				Hydrophytic
O		= Total Cove		Vegetation Present? Yes No
50% of total cover:0		total cover:		
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL Sampling Point: whlc003e_w

Depth	cription: (Describe to Matrix			x Feature:				- · · · · · ·
(inches)	Color (moist)	%	Color (moist)	% <u>* </u>	Type ¹	Loc ²	Texture	Remarks
0-14	2.5 Y 4/2		′R 4/6	20	С	PL/M	SIC	
-	·							
								_
	· -							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Re	duced Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all LRF	Rs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histoso	ol (A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S. T. U	1 cm M	luck (A9) (LRR O)
·	Epipedon (A2)	_	Thin Dark Su					luck (A10) (LRR S)
	listic (A3)	_	Loamy Mucky					ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	_	Loamy Gleye			. •,		ont Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)	-	✓ Depleted Mat)			lous Bright Loamy Soils (F20)
	c Bodies (A6) (LRR P ,	T II)	Redox Dark S	, ,	:6)			(A 153B)
_	lucky Mineral (A7) (LR		Nedox Dark C Depleted Dar	•	,			arent Material (TF2)
· 	Presence (A8) (LRR U		Depleted Dai Redox Depre					hallow Dark Surface (TF12)
	luck (A9) (LRR P, T)	<i>,</i> –	Redox Depre Marl (F10) (L		٠,			Explain in Remarks)
	ed Below Dark Surface	- - (A11)	Nan (1 10) (L Depleted Och		/MIDA1	51\	Other (Explain in Remarks)
	Park Surface (A12)	- (A11) _	Depleted Oct Iron-Mangane		-	-	T) ³ Indica	ators of hydrophytic vegetation and
	Prairie Redox (A16) (N		Umbric Surfa					and hydrology must be present,
						, 0)		ess disturbed or problematic.
	Mucky Mineral (S1) (L		Delta Ochric			0.4 4E0D)	unie	ess disturbed of problematic.
	Gleyed Matrix (S4)	=	Reduced Ver					
-	Redox (S5)	-	Piedmont Flo					4520)
	d Matrix (S6)		Anomalous B	rignt Loar	ny Solis (F20) (MLRA	A 149A, 153C,	1530)
	urface (S7) (LRR P, S						I	
Restrictive	Layer (if observed):							
Type:			_					_
Depth (ii	nches):		<u> </u>				Hydric Soil	Present? Yes No
Remarks:								
	rocont							
Hydric soil p	resent							



Photo 1 Wetland data point whlc003e_w facing north



Photo 2
Wetland data point whlc003e_w facing east



Photo 3
Wetland data point whlc003e_w facing south



Photo 4
Wetland data point whlc003e_w facing west

Project/Site: Atlantic Coast Pipeline	City/C	County: Halifax		Sampling Date: 11/19/2014			
Applicant/Owner: DOMINION	State: NC Sampling Point: whlcoo						
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Slight slope Local relief (concave, convex, none): none Slope (%): 2							
Subregion (LRR or MLRA): P Lat: 36.40267417 Long: -77.58190491							
Soil Map Unit Name: Riverview loam, 0 to	1 percent slopes, occasionally flo		NIMI classific	Datum			
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or Hy				present? Yes No			
Are Vegetation, Soil, or Hy	drology naturally problemate	atic? (If needed, e	explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Atta	ach site map showing san	npling point location	ns, transects	, important features, etc.			
Lludranhutia Vagatatian Pragant?	Voc. 4/ No.						
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	Is the Sampled Area		,			
Wetland Hydrology Present?	Yes No	within a Wetland?	Yes	No			
Remarks:	- 100 <u></u> 110 <u></u>						
remarks.							
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is re	quired; check all that apply)		Surface Soil				
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Marl Deposits (B15) (LRI	R U)	Drainage Par				
Saturation (A3)	Hydrogen Sulfide Odor (Moss Trim Li				
Water Marks (B1)	Oxidized Rhizospheres a			Water Table (C2)			
Sediment Deposits (B2)	Presence of Reduced Iro		Crayfish Burrows (C8)				
Drift Deposits (B3)	Recent Iron Reduction in			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin Muck Surface (C7)			Position (D2)			
Iron Deposits (B5)	Other (Explain in Remark	(S)	Shallow Aqui	itard (D3)			
Inundation Visible on Aerial Imagery	(B7)		FAC-Neutral	Test (D5)			
Water-Stained Leaves (B9)			Sphagnum m	noss (D8) (LRR T, U)			
Field Observations:							
Surface Water Present? Yes	No Depth (inches):						
Water Table Present? Yes	No Depth (inches):						
Saturation Present? Yes	No V Depth (inches):	Wetland H	lydrology Presen	nt? Yes No			
(includes capillary fringe)							
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre	evious inspections), if ava	ilable:				
Remarks:							
No wetland hydrology present							

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Platanus occidentalis	60	Yes	FACW	That Are OBL, FACW, or FAC:3 (A)
2. Quercus rubra	15	No	FACU	Total Number of Dominant
3. Acer rubrum	5	No	FAC	Species Across All Strata: 4 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
6.				That Are OBL, I AGW, OF I AG.
7				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	80			OBL species0 x 1 =0
50% of total cover: 40		= Total Cov	16	FACW species 60 x 2 = 120
50 % Of total cover.	20% of	total cover:		FAC species 85 x 3 = 255
Sapling/Shrub Stratum (Plot size:)				FACU species 55 x 4 = 220
1. Ligustrum sinense	70	Yes	FAC	0
2				UPL species
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =2.97
F				T Tevalcinec index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	70			3 - Prevalence Index is ≤3.0¹
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 35	20% of	total cover:	14	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	40	Yes	FACU	be present, unless disturbed or problematic.
2. Smilax rotundifolia	10	Yes	FAC	Definitions of Four Vegetation Strata:
3.				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				neight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				W
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	50			
50% of total cover: 25		= Total Cov		
30 % of total cover.	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4.				
5.				Hadaankada
J	0	= Total Cov		Hydrophytic Vegetation
50% of total cover: 0				Present? Yes No No
30 /0 OI total cover.		total cover:		
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL Sampling Point: whlc003_u

Profile Des	cription: (Describe t	o the depth	needed to docur	nent the i	indicator	or confirm	the absence of	indicators.)	
Depth	Matrix			x Feature	-				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-12	10 YR 4/4	100					SICL		
					· 				
<u> </u>									
				-	· 				_
l									
¹ Type: C=C	oncentration, D=Depl	etion, RM=Re	educed Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: PL	_=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applica	ible to all LR	Rs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric So	oils³:
Histoso	(A1)		Polyvalue Be	low Surfa	ce (S8) (L	.RR S, T, U) 1 cm Muc	ck (A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark Sι	ırface (S9) (LRR S,	T, U)	2 cm Muc	ck (A10) (LRR S)	
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LRF	R O)	Reduced	Vertic (F18) (outside ML	_RA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix ((F2)		Piedmont	: Floodplain Soils (F19) (I	LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			Anomalou	us Bright Loamy Soils (F2	20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	- 6)		(MLRA	153B)	
5 cm M	ucky Mineral (A7) (LR	R P, T, U)	Depleted Da	rk Surface	e (F7)			nt Material (TF2)	
	resence (A8) (LRR U)		Redox Depre		8)			llow Dark Surface (TF12))
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Ex	plain in Remarks)	
	d Below Dark Surface	e (A11)	Depleted Oc						
	ark Surface (A12)		Iron-Mangan					ors of hydrophytic vegeta	
	rairie Redox (A16) (M					, U)		d hydrology must be pre	
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric			OA 450D)	uniess	disturbed or problemation) .
	Gleyed Matrix (S4)	•	Reduced Ver				241		
-	Redox (S5)		Piedmont Flo					E3D)	
	d Matrix (S6) Irface (S7) (LRR P, S	T 11)	Alioillaious E	origini Luai	illy Solis (F20) (WILK)	A 149A, 153C, 1	550)	
	Layer (if observed):	, 1, 0)							
_	Layer (ii observed).								
Type:	1 \		_					.o. v	🗸
	ches):		_				Hydric Soil Pr	esent? Yes	No
Remarks:									
No hydric soi	l present								



Photo 1 Upland data point whlc003_u facing north



Photo 2 Upland data point whlc003_u facing east



Photo 3
Upland data point whlc003_u facing south



Photo 4 Upland data point whlc003_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Ha	alifax	_ Sampling Date: 11/19/2014				
Applicant/Owner: DOMINION	Sampling Point: whlc004e_w						
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Depression							
Subregion (LRR or MLRA): P	1 at: 36.40213029	1 ang77.58298593	Datum: WGS 1984				
Soil Map Unit Name: Dogue silt loam, 0 to 3 percent	slones	Long: NWI classifi	Datum PFO1C				
Are climatic / hydrologic conditions on the site typical							
Are Vegetation, Soil, or Hydrology							
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)				
SUMMARY OF FINDINGS - Attach site	map showing sampling p	oint locations, transect	s, important features, etc.				
Hydrophytic Vegetation Present? Yes <u>✓</u>	No Is the S						
	, No	ampled Area	/ N.				
	No within a	Wetland? Yes	No				
Remarks:							
Small PEM depressional wetland.							
HYDROLOGY							
Wetland Hydrology Indicators:		-	ators (minimum of two required)				
Primary Indicators (minimum of one is required; che		Surface Soi					
	Aquatic Fauna (B13)		egetated Concave Surface (B8)				
	Marl Deposits (B15) (LRR U)		atterns (B10)				
	Hydrogen Sulfide Odor (C1)	Moss Trim I					
· ·	Oxidized Rhizospheres along Livin		Water Table (C2)				
	Presence of Reduced Iron (C4)	Crayfish Bu					
	Recent Iron Reduction in Tilled Sol		/isible on Aerial Imagery (C9)				
	hin Muck Surface (C7) Other (Explain in Remarks)	Geomorphic Shallow Aqu	c Position (D2)				
Inundation Visible on Aerial Imagery (B7)	Allei (Explain in Nomano)	✓ FAC-Neutra					
Water-Stained Leaves (B9)			moss (D8) (LRR T, U)				
Field Observations:		<u> </u>	, , ,				
	, Depth (inches):						
	Depth (inches):						
	Depth (inches):		nt? Yes <u> </u>				
(includes capillary fringe)			·				
Describe Recorded Data (stream gauge, monitoring	j well, aeriai photos, previous irisp	ections), if available:					
Domorko							
Remarks: Wetland hydrology present							
Welland Hydrology present							

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species	
1. Platanus occidentalis	15	Yes	FACW	That Are OBL, FACW, or FAC:	(A)
2				Total Number of Dominant	
3				Species Across All Strata: 2	(B)
4					()
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100	(A /D)
				That Are OBL, FACW, or FAC:	(A/B)
6				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
8	15			OBL species 120 x 1 = 120	<u> </u>
7.5		= Total Cov	2	FACW species 20 $x = 40$	
50% of total cover:	20% of	total cover:			_
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 = 0	_
1				FACU species $0 \times 4 = 0$	_
2				UPL species	_
3				Column Totals:(A)(O)	(B)
4.				Prevalence Index = $B/A = 1.14$	
				Trevalence index Birt	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				∠ 2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0¹	
	0	= Total Cov		Problematic Hydrophytic Vegetation ¹ (Expla	in)
50% of total cover:0	20% of	total cover:	0		
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology	must
1. Scirpus cyperinus	85	Yes	OBL	be present, unless disturbed or problematic.	iidot
2. Dulichium arundinaceum	20	No	OBL	Definitions of Four Vegetation Strata:	
3. Juncus effusus	15	No	OBL		
4. Persicaria pensylvanica	5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6	
· · · · · · · · · · · · · · · · · · ·				more in diameter at breast height (DBH), regard height.	iess or
5					
6				Sapling/Shrub – Woody plants, excluding vines	
7				than 3 in. DBH and greater than 3.28 ft (1 m) tal	•
8				Herb – All herbaceous (non-woody) plants, rega	rdless
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine – All woody vines greater than 3.28	R ff in
11.				height.	, 10 111
12.					
	125	= Total Cov	er		
50% of total cover: 62.5		total cover:	0-		
	_ 20 /0 01	total cover.			
/ 100 a) / 1110 at at at at at a l					
1					
2					
3					
4					
5				Hydrophytic	
	0	= Total Cov	er	Vegetation	
50% of total cover:0	20% of	total cover:	0	Present? Yes No	
Remarks: (If observed, list morphological adaptations below					
	,-				

SOIL Sampling Point: whlc004e_w

Depth	cription: (Describe to Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-8	2.5 Y 5/2	85	7.5 YR 5/8	15	С	PL/M	SIC	
8-14	10 YR 5/2	70	7.5 YR 5/8	30	С	PL/M	SIC	
		·		<u> </u>				
								_
					·			
					·			
	Concentration, D=Dep					ains.		L=Pore Lining, M=Matrix.
-	Indicators: (Application	able to all L						or Problematic Hydric Soils ³ :
Histoso	` '		Polyvalue Be					ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
	listic (A3)		Loamy Muck			(0)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(F2)			t Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)	T 11\	✓ Depleted Ma	` ,	-0\			us Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P		Redox Dark	•	,		(MLRA	•
	ucky Mineral (A7) (LR		Depleted Date		. ,			ent Material (TF2) allow Dark Surface (TF12)
	resence (A8) (LRR U)	Redox Depre		0)			xplain in Remarks)
	uck (A9) (LRR P, T) ed Below Dark Surface	o (A11)	Marl (F10) (L Depleted Ocl		/MI DA 1	F4\	Other (E)	xpiain in Remarks)
	ed Below Dark Surface	= (A11)	Iron-Mangan	, ,	•	•	T) ³ Indicat	ors of hydrophytic vegetation and
	Prairie Redox (A16) (N	/I RΔ 150Δ)	_					nd hydrology must be present,
	Mucky Mineral (S1) (L		Delta Ochric			, 0,		s disturbed or problematic.
	Gleyed Matrix (S4)	0, 0,	Reduced Ver			OA. 150B)	G55	o diotai o di problemano.
	Redox (S5)		Piedmont Flo				9A)	
	d Matrix (S6)						A 149A, 153C, 1	53D)
	urface (S7) (LRR P, S	s, T, U)	_	J	, (- / (,,	•
	Layer (if observed):							
Type:								
	nches):						Hydric Soil P	resent? Yes No
Remarks:							Trydric doi: 1	105
Hydric soil p	resent							



Photo 1
Wetland data point whlc004e_w facing north



Photo 2
Wetland data point whlc004e_w facing east



Photo 3
Wetland data point whlc004e_w facing south

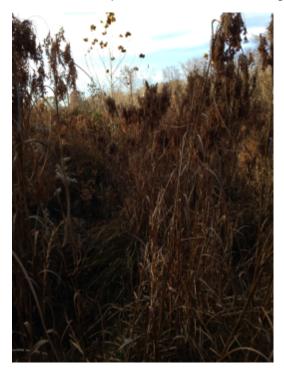


Photo 4
Wetland data point whlc004e_w facing west

Project/Site: Atlantic Coast Pipeline	City	/County: Halifax		Sampling Date: 11/19/2014			
Applicant/Owner: DOMINION							
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Hill Slope Local relief (concave, convex, none): none Slope (%): 40							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Dogue silt loam,	, 0 to 3 percent slopes	Long	NIVI classifi	Datum			
Are climatic / hydrologic conditions on							
Are Vegetation, Soil, c							
Are Vegetation, Soil, c			explain any answe				
SUMMARY OF FINDINGS –	Attach site map showing sa	mpling point location	ons, transects	s, important features, etc.			
Hydrophytic Vegetation Present?	Yes <u>✓</u> No	le the Commission Area					
Hydric Soil Present?	Yes No	Is the Sampled Area	Vaa	No 🗸			
Wetland Hydrology Present?	Yes No	within a Wetland?	res	NO			
Remarks:		•					
LIVEROLOGY							
HYDROLOGY			Cocondon India	atora (minimum of two required)			
Wetland Hydrology Indicators:	is required; shock all that apply)			ators (minimum of two required)			
Primary Indicators (minimum of one			Surface Soil				
Surface Water (A1)	Aquatic Fauna (B13)	DD II)	· · · · · · ·	getated Concave Surface (B8)			
High Water Table (A2)	Marl Deposits (B15) (L Hydrogen Sulfide Odor		Drainage Pa Moss Trim L				
Saturation (A3) Water Marks (B1)	Oxidized Rhizospheres			Water Table (C2)			
Sediment Deposits (B2)	Presence of Reduced I		Crayfish Bur				
Sediment Deposits (B2) Drift Deposits (B3)	Recent Iron Reduction			risible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin Muck Surface (C7			: Position (D2)			
Iron Deposits (B5)	Other (Explain in Rema		Shallow Aqu				
Inundation Visible on Aerial Imag			FAC-Neutra				
Water-Stained Leaves (B9)	ge., (2.)		· · ·	moss (D8) (LRR T, U)			
Field Observations:				, , ,			
Surface Water Present? Yes	No V Depth (inches):						
	No Depth (inches):						
1	No Pepth (inches):		Hydrology Prese	nt? Yes No			
(includes capillary fringe)							
Describe Recorded Data (stream ga	uge, monitoring well, aerial photos, p	revious inspections), if ava	ailable:				
Demode							
Remarks: No wetland hydrology present							
No wetland hydrology present							

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0			OBL species x 1 = 5
0		= Total Cov	Λ	FACW species 20 x 2 = 40
50% of total cover:0	20% of	total cover:		FAC species75 x 3 =225
Sapling/Shrub Stratum (Plot size: 15) 1 Liquidambar styraciflua	15	Yes	FAC	FACU species 10 x 4 = 40
			TAC	UPL species0 x 5 =0
2				Column Totals: 110 (A) 310 (B)
3				(7)
4 5.				Prevalence Index = B/A = 2.81
5 6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7 8.				2 - Dominance Test is >50%
0	15	= Total Cov	or	✓ 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 7.5		total cover:	_	Problematic Hydrophytic Vegetation ¹ (Explain)
E	20 /6 01	total cover.	·	4
Herb Stratum (Plot size:	60	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Leersia virginica	20	Yes	FACW	Definitions of Four Vegetation Strata:
3. Lonicera japonica	10	No	FACU	Trace Manda plants evaluation visco 2 in (7.0 cm) on
4. Scirpus cyperinus	5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	95	= Total Cov	er	
50% of total cover:47.5	20% of	total cover:	19	
Woody Vine Stratum (Plot size: 30)				
1				
2				
3				
4				
5.				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes No
Remarks: (If observed, list morphological adaptations belo	w).			
	,			

SOIL Sampling Point: whlc004_u

Profile Des	cription: (Describe t	o the depth r	needed to docur	nent the i	indicator	or confirm	the absence of	findicators.)
Depth	Matrix			x Feature	-			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	2.5 Y 4/3	100					SICL	
					· ·			
								
-					· 			
¹Type: C=C	oncentration, D=Depl	etion RM=Re	duced Matrix MS	S=Masker	Sand Gr	ains	² I ocation: Pl	L=Pore Lining, M=Matrix.
	Indicators: (Applica					unio.		or Problematic Hydric Soils ³ :
_						DDCTII		•
Histoso		-	Polyvalue Be Thin Dark Su					ck (A9) (LRR O)
	pipedon (A2) istic (A3)	-	Loamy Muck					ck (A10) (LRR S) I Vertic (F18) (outside MLRA 150A,B)
	• •	-		-		. 0)		it Floodplain Soils (F19) (LRR P, S, T)
	en Sulfide (A4) d Layers (A5)	-	Loamy Gleye Depleted Ma		(1 <i>L)</i>			us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T II)	Depleted Ma Redox Dark :		- 6)		· · · · · · · · · · · · · · · · · · ·	153B)
_	ucky Mineral (A7) (LR		Redox Dark : Depleted Dar					ent Material (TF2)
	resence (A8) (LRR U)		Depleted Dai					allow Dark Surface (TF12)
	uck (A9) (LRR P, T)	· <u>-</u>	Redox Depre Marl (F10) (L		·)			xplain in Remarks)
	d Below Dark Surface	· (A11)	Man (1 10) (2 Depleted Ocl		(MIRA1	51)	Other (E)	xpiairi ii remarks)
	ark Surface (A12)		Iron-Mangan				T) ³ Indicate	ors of hydrophytic vegetation and
	rairie Redox (A16) (M	LRA 150A)	-					nd hydrology must be present,
	Mucky Mineral (S1) (L		Delta Ochric			, -,		s disturbed or problematic.
	Gleyed Matrix (S4)	, .,	Reduced Ver			0A. 150B)		
	Redox (S5)	-	Piedmont Flo				9A)	
-	d Matrix (S6)	-					, A 149A, 153C, 1	53D)
	ırface (S7) (LRR P, S	, T, U)		Ü	`	, ,	, ,	•
	Layer (if observed):							
Type:								
	ches):		_				Hydric Soil Pr	resent? Yes No
Remarks:			_				,	
	l							
No hydric soi	i present							



Photo 1 Upland data point whlc004_u facing north



Photo 2
Upland data point whlc004_u facing east



Photo 3
Upland data point whlc004_u facing south



Photo 4 Upland data point whlc004_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Halifax	Sampling Date: 12/17/2014
Applicant/Owner: DOMINION			Sampling Point: whlc005f_w
	Section Tow	nship, Range: No PLSS in this	
Landform (hillslope, terrace, etc.): Slight slope			
Subregion (LRR or MLRA): P		Jane: -77.58431757	Datum: WGS 1984
Soil Map Unit Name: Winton fine sandy loam, 25 to 4	5 percent slopes	LOTIG.	Datum. None
	_		
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstance	s" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any ans	swers in Remarks.)
SUMMARY OF FINDINGS - Attach site i	map showing sampling	point locations, transec	cts, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the		
	No.	Sampled Area	v
	No within	a Wetland? Yes	No
Remarks:			
HADBOI OCA			
HYDROLOGY Western Hydrology Indicators		Cocondon Inc	diagtors (minimum of two required)
Wetland Hydrology Indicators:	ok all that apply)	· · · · · · · · · · · · · · · · · · ·	dicators (minimum of two required)
Primary Indicators (minimum of one is required; che			Soil Cracks (B6)
	quatic Fauna (B13) arl Deposits (B15) (LRR U)		Vegetated Concave Surface (B8) Patterns (B10)
Saturation (A3)	ydrogen Sulfide Odor (C1)		n Lines (B16)
Water Marks (B1) O:	xidized Rhizospheres along Liv		on Water Table (C2)
	resence of Reduced Iron (C4)		Burrows (C8)
Drift Deposits (B3)	ecent Iron Reduction in Tilled S	Soils (C6) Saturation	n Visible on Aerial Imagery (C9)
	nin Muck Surface (C7)		hic Position (D2)
	ther (Explain in Remarks)		Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)			tral Test (D5)
Water-Stained Leaves (B9)		Spnagnui	m moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No	Donth (inches):		
Water Table Present? Yes V No			
Saturation Present? Yes V No		— Wetland Hydrology Pre	sent? Yes ✔ No
(includes capillary fringe)		_	36H: 163 NO
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous in	spections), if available:	
Remarks: Wetland hydrology present			
Wettand hydrology present			

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species
1. Acer rubrum	70	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4.				(2)
				Percent of Dominant Species That Are ORL FACW or FAC: 75
5				That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	70	= Total Cove	er	OBL species X I =
50% of total cover:35	20% of	total cover:	14	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15)				FAC species 100 x 3 = 300
1 Carpinus caroliniana	15	Yes	FAC	FACU species3 x 4 =12
2. Acer rubrum	15	Yes		UPL species 0 x 5 = 0
			FAC	Column Totals: 103 (A) 312 (B)
3				Column Totals (A) (B)
4				Prevalence Index = B/A = 3.02
5				Hydrophytic Vegetation Indicators:
6.				
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cove	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 15	20% of	total cover:	6	
Herb Stratum (Plot size:)				1 Indicators of budgio sail and watland budgelogy must
1 Lonicera japonica	3	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				and to the BBH and grouter than 6.25 te (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10		·		Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
12.	3	= Total Cove		
15				
50% of total cover:1.5	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cove	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w)			1
The market (in experience, not morphological adaptations sold	,.			

SOIL Sampling Point: whlc005f_w

Depth	cription: (Describe Matrix	to the depti		x Feature		or commi	the absence of	muicators.)
(inches)	Color (moist)	%	Color (moist)	<u>% reature</u> %	Type ¹	Loc²	Texture	Remarks
0-2	2.5 Y 6/2		10 YR 4/6	2	C	PL	LS	
2-10	2.5 Y 5/1	98	10 YR 3/6	2	С	PL	SCL	
10-14	2.5 Y 5/1	100			. <u> </u>		SCL	
		·		<u> </u>				
	oncentration, D=Dep					ains.		=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L						Problematic Hydric Soils ³ :
Histoso	, ,		Polyvalue Be					k (A9) (LRR O)
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck					k (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			. 0)		Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Ma		(· -)			us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	, T, U)	Redox Dark	. ,	- 6)		(MLRA	
_	ucky Mineral (A7) (LF		Depleted Dar	rk Surface	· (F7)			nt Material (TF2)
Muck P	resence (A8) (LRR U)	Redox Depre	essions (F	8)		Very Shal	low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Ex	plain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Ocl	, ,	•	•	3	
	ark Surface (A12)		Iron-Mangan					ors of hydrophytic vegetation and
	Prairie Redox (A16) (N					, U)		d hydrology must be present,
	Mucky Mineral (S1) (I Gleyed Matrix (S4)	LRR (J, S)	Delta Ochric			0A 1E0D)	uniess	disturbed or problematic.
	Redox (S5)		Reduced Ver Piedmont Flo				9Δ)	
-	d Matrix (S6)						عمر) A 149A, 153C, 15	53D)
	ırface (S7) (LRR P, S	S. T. U)	/ #1011141040 E	origine Loa	ing conc (. 20) (211		,,,,,
	Layer (if observed):							
Type:								
	ches):						Hydric Soil Pro	esent? Yes No
Remarks:							,	
Hydric soil pr	esent							
riyano son pi	Cocin							
ı								
1								
i								



Photo 1
Wetland data point whlc005f_w facing north



Photo 2
Wetland data point whlc005f_w facing east



Photo 3
Wetland data point whlc005f_w facing south



Photo 4
Wetland data point whlc005f_w facing west

Project/Site: Atlantic Coast Pipeline		City/Co	unty: Halifax		Sampling Date:	12/17/2014	
Applicant/Owner: DOMINION					Sampling Point:		
Investigator(s): Team C		Section	n, Township, Range: N				
Landform (hillslope, terrace, etc.): Hil	Il Slope	L ocal re	elief (concave convex	none)· none	Slop	e (%)· 100	
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Winton fine san	dy loam, 25 to 45 percei	nt slopes	Long	NWI classific	cation. None	uiii	
Are climatic / hydrologic conditions or							
Are Vegetation, Soil,		-				✓ No	
						NO	
Are Vegetation, Soil,						-4	
SUMMARY OF FINDINGS –	Attach site map si	nowing sami	bling point location	ons, transects	s, important re	eatures, etc.	
Hydrophytic Vegetation Present?	Yes No	<u> </u>	Is the Sampled Area				
Hydric Soil Present?	Yes No	<u> </u>	within a Wetland?	Yes	No	_	
Wetland Hydrology Present? Remarks:	Yes No					_	
HYDROLOGY				Casandaniladia	(minimum of	h	
Wetland Hydrology Indicators:	is required; check all the	at apply)			cracks (R6)	two required)	
Primary Indicators (minimum of one	•			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)			
Surface Water (A1) High Water Table (A2)	Aquatic Fa	osits (B15) (LRR	IIV	Sparsely ve	-	Surface (Bo)	
Saturation (A3)		Sulfide Odor (C		Moss Trim L			
Water Marks (B1)			ong Living Roots (C3)		Water Table (C2)		
Sediment Deposits (B2)		of Reduced Iron		Crayfish Bur			
Drift Deposits (B3)	Recent Iro	n Reduction in T	illed Soils (C6)	Saturation V	isible on Aerial Im	agery (C9)	
Algal Mat or Crust (B4)	Thin Muck	Surface (C7)		Geomorphic	Position (D2)		
Iron Deposits (B5)		olain in Remarks)	Shallow Aqu			
Inundation Visible on Aerial Ima	agery (B7)			FAC-Neutral			
Water-Stained Leaves (B9)				Sphagnum n	noss (D8) (LRR T,	, U)	
Field Observations: Surface Water Present? Yes	No. V Dont	(inches):					
	No _ Depti						
	No Depti			lydrology Preser	nt? Vos	No 🗸	
(includes capillary fringe)					it: les	NO	
Describe Recorded Data (stream ga	auge, monitoring well, ae	rial photos, previ	ious inspections), if ava	ilable:			
Remarks:							
No wetland hydrology present							
l l l l l l l l l l l l l l l l l l l							

Section Sect
otal Number of Dominant pecies Across All Strata: ercent of Dominant Species hat Are OBL, FACW, or FAC: Total % Cover of: OBL species ACW species ACW species ACU species OCH ACU species OCH ACU species OCH ACW Species
pecies Across All Strata:
pecies Across All Strata:
revalence Index worksheet: Total % Cover of: BL species 0 ACW species 0 AC species 115 ACU species 0 ACU species 0 ACU species 115 ACU species 0 ACU species 115 ACU species ACU species 115 ACU species ACU species 115 ACU species ACU spec
hat Are OBL, FACW, or FAC:
revalence Index worksheet: Total % Cover of:
Total % Cover of: Multiply by: BBL species 0 x 1 = 0 ACW species 0 x 2 = 0 AC species 0 x 3 = 0 ACU species 115 x 4 = 460 IPL species 0 x 5 = 0 solumn Totals: 115 (A) 460 (B)
OBL species 0 x 1 = 0 ACW species 0 x 2 = 0 AC species 0 x 3 = 0 ACU species 115 x 4 = 460 IPL species 0 x 5 = 0 Isolumn Totals: 115 (A) 460 (B)
OBL species 0 x 1 = 0 ACW species 0 x 2 = 0 AC species 0 x 3 = 0 ACU species 115 x 4 = 460 IPL species 0 x 5 = 0 Isolumn Totals: 115 (A) 460 (B)
ACW species 0 x 2 = 0 AC species 0 x 3 = 0 ACU species 115 x 4 = 460 PL species 0 x 5 = 0 Folumn Totals: 115 (A) (B)
AC species $ \begin{array}{c cccc} 0 & x & 3 & = & 0 \\ ACU & species & 115 & x & 4 & = & 460 \\ PL & species & 0 & x & 5 & = & 0 \\ Solumn & Totals: & 115 & (A) & 460 & (B) \\ \end{array} $
ACU species
ACO species $\begin{array}{c} & \times 4 = \\ & 0 \\ \text{PL species} \\ & 115 \\ \text{Column Totals:} \\ & \begin{array}{c} & \times 4 = \\ & & 0 \\ & & 460 \\ & & \end{array} $
column Totals: 115 (A) 460 (B)
olumn Totals: (A) (B)
Prevalence Index = B/A = 4
Prevalence Index = B/A = 4
ydrophytic Vegetation Indicators:
_ 1 - Rapid Test for Hydrophytic Vegetation
_ 2 - Dominance Test is >50%
_ 3 - Prevalence Index is ≤3.0 ¹
Problematic Hydrophytic Vegetation ¹ (Explain)
ndicators of hydric soil and watland hydrology must
ndicators of hydric soil and wetland hydrology must e present, unless disturbed or problematic.
refinitions of Four Vegetation Strata:
ennitions of Four Vegetation Strata.
ree – Woody plants, excluding vines, 3 in. (7.6 cm) or
nore in diameter at breast height (DBH), regardless of
eight.
apling/Shrub – Woody plants, excluding vines, less
nan 3 in. DBH and greater than 3.28 ft (1 m) tall.
lerb – All herbaceous (non-woody) plants, regardless
f size, and woody plants less than 3.28 ft tall.
loody vine – All woody vines greater than 3.28 ft in
eight.
ydrophytic
egetation resent? Yes No
1656III: 165 NO
e

SOIL Sampling Point: whlc005_u

Profile Des	cription: (Describe t	o the depth	needed to docur	nent the i	indicator	or confirm	the absence of i	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-14	7.5 YR 4/6	100					LS	
-					· 			
				-	· 			
·								
¹ Type: C=C	oncentration, D=Depl	etion, RM=Re	educed Matrix, M	S=Masked	d Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	ble to all LR	Rs, unless othe	rwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	(A1)		Polyvalue Be	low Surfa	ce (S8) (L	.RR S, T, U) 1 cm Mucl	k (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Sι	ırface (S9) (LRR S,	T, U)	2 cm Mucl	k (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LRF	R O)	Reduced \	Vertic (F18) (outside MLRA 150A,E
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix ((F2)		Piedmont	Floodplain Soils (F19) (LRR P, S, T
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			Anomalou	s Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P,		Redox Dark	Surface (F	- 6)		(MLRA	153B)
	ucky Mineral (A7) (LR		Depleted Da					nt Material (TF2)
	resence (A8) (LRR U))	Redox Depre		8)		-	ow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Exp	olain in Remarks)
	d Below Dark Surface	e (A11)	Depleted Oc				 > 3, ,, ,	
	ark Surface (A12)	U D A 450A)	Iron-Mangan					rs of hydrophytic vegetation and
	rairie Redox (A16) (M		Umbric Surfa			, U)		d hydrology must be present,
	Mucky Mineral (S1) (L	KK (J, 5)	Delta Ochric			OA 150D)	uniess	disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Verification Piedmont Floring				241	
-	d Matrix (S6)						A 149A, 153C, 15	(3D)
	urface (S7) (LRR P, S	T. U)	Anomalous L	origint Loai	illy Colla (1 20) (IVILIX)	1 143A, 133O, 13	30)
	Layer (if observed):	, 1, 0,						
Type:	_ayo: (obco: roa).							
	ahaa):		_				Undria Cail Dra	No. Vos. No. V
	ches):						Hydric Soil Pre	esent? Yes No
Remarks:								
No hydric soi	l present							



Photo 1 Upland data point whlc005_u facing north



Photo 2 Upland data point whlc005_u facing east



Photo 3
Upland data point whlc005_u facing south

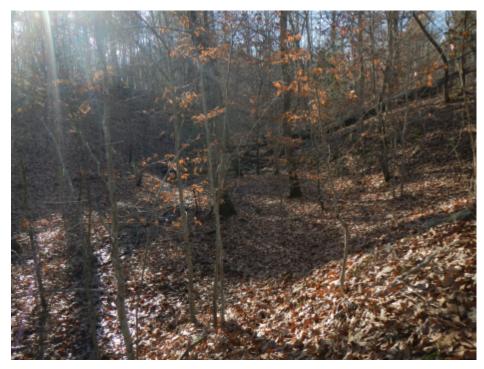


Photo 4 Upland data point whlc005_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Halifax		Sampling Date: 12/17/2014
Applicant/Owner: DOMINION			Sampling Point: whlc006f_w
	Section, Township, F		
Landform (hillslope, terrace, etc.): Floodplain			
Subregion (LRR or MLRA): P			
Soil Map Unit Name: Winton fine sandy loam, 25 t	o 45 percent slopes	Long. NAU classific	Datum
Are climatic / hydrologic conditions on the site typic			
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology	naturally problematic? (If	needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach sit	e map showing sampling point	locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ No Is the Sample		
	No Is the Sample within a Wetl		No
Wetland Hydrology Present? Yes	No Within a Well	iditur res	NO
Wetland is found within the floodplains of two unn	ameu, iiist ordei perenniai sueams.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; of	,,	Surface Soil	, ,
	Aquatic Fauna (B13)		getated Concave Surface (B8)
✓ High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Pa	
Saturation (A3) Water Marks (B1)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roo	Moss Trim Li	Mater Table (C2)
	Presence of Reduced Iron (C4)	ots (C3) Dry-Season ✓ Crayfish Buri	
	Recent Iron Reduction in Tilled Soils (C6		sible on Aerial Imagery (C9)
	Thin Muck Surface (C7)		Position (D2)
✓ Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aqu	itard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)
Field Observations:			
	Depth (inches):		
	Depth (inches): 6 Depth (inches): 0 N		
Saturation Present? Yes _ Vo _ No _	Depth (inches):	Netland Hydrology Preser	t? Yes V No
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspectio	ns), if available:	
Remarks: Wetland hydrology present			
Wettand flydrology present			

20	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species	
1. Acer rubrum	70	Yes	FAC	· · · · ·	A)
2. Platanus occidentalis	20	Yes	FACW		
3.				Total Number of Dominant Species Across All Strata: 3 (E	٥١
				Species Across Air Strata.	رد
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 66.6666666 (A	4/B)
6					
7				Prevalence Index worksheet:	
8.			·	Total % Cover of: Multiply by:	
<u> </u>	90	= Total Cov		OBL species0 x 1 =0	
			10	FACW species 20	
50% of total cover:45	20% of	total cover:		FAC species 70 x 3 = 210	
Sapling/Shrub Stratum (Plot size:)				0	
1				FACU species x 4 =	
2.				UPL species x 5 =	
				Column Totals:90 (A)250	(B)
3					
4				Prevalence Index = B/A = 2.77	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7.				<u> </u>	
				2 - Dominance Test is >50%	
8	0			3 - Prevalence Index is ≤3.0 ¹	
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)	
50% of total cover:0	20% of	total cover:	0		
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology mus	o.t
1 Carex sp.	10	Yes		be present, unless disturbed or problematic.	51
···					
2				Definitions of Four Vegetation Strata:	
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm	ı) or
4				more in diameter at breast height (DBH), regardless	
5				height.	
				One the wide with a New development of the section	
6				Sapling/Shrub – Woody plants, excluding vines, le than 3 in. DBH and greater than 3.28 ft (1 m) tall.	SS
7				than 3 iii. DBH and greater than 3.20 it (1 iii) taii.	
8				Herb – All herbaceous (non-woody) plants, regardle	ess
9				of size, and woody plants less than 3.28 ft tall.	
10					
				Woody vine – All woody vines greater than 3.28 ft	ın
11				height.	
12					
	10	= Total Cov	er		
50% of total cover:5	20% of	total cover:	2		
Woody Vine Stratum (Plot size: 30)					
`					
1					
2					
3					
4					
5					
J				Hydrophytic	
0		= Total Cov		Vegetation Present? Yes No	
50% of total cover:0	20% of	total cover:		1103CHC. 103 NO	
Remarks: (If observed, list morphological adaptations belo	w).				
, , ,					

SOIL Sampling Point: whlc006f_w

Depth	cription: (Describe			x Feature				,
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-10	2.5 Y 4/2	90 5	YR 3/4	10	Ċ	PL/M	SCL	
10-14	5 Y 5/1	100					SL	
		·			· 			
							 -	
17	oncentration, D=Dep		advagad Nastrice NAC				21 a a a tia a	N - Dava Lining M-Makriy
	Indicators: (Application)					allis.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
-		able to all Li				DD C T II		•
Histoso	pipedon (A2)		Polyvalue Be Thin Dark Su					uck (A9) (LRR O) uck (A10) (LRR S)
	istic (A3)		Loamy Muck					d Vertic (F18) (outside MLRA 150A,E
	en Sulfide (A4)		Loamy Gleye			. 0,	· · · · · · · · · · · · · · · · · · ·	nt Floodplain Soils (F19) (LRR P, S, T
	d Layers (A5)		✓ Depleted Mar	,	/			ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	. T. U)	Redox Dark	` ,	-6)			A 153B)
_	ucky Mineral (A7) (LR		Depleted Dar	•	,			rent Material (TF2)
	resence (A8) (LRR U		Redox Depre					allow Dark Surface (TF12)
	uck (A9) (LRR P, T)	,	Marl (F10) (L		-,			Explain in Remarks)
	d Below Dark Surface	e (A11)	Depleted Oct		(MLRA 1	51)		,
Thick D	ark Surface (A12)	` '	Iron-Mangan	ese Mass	es (F12) (LRR O, P, 1	T) ³ Indica	tors of hydrophytic vegetation and
Coast F	Prairie Redox (A16) (N	/ILRA 150A)	Umbric Surfa	ce (F13) ((LRR P, T	, U)	wetla	and hydrology must be present,
Sandy I	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric	(F17) (ML	RA 151)		unles	ss disturbed or problematic.
Sandy (Gleyed Matrix (S4)		Reduced Ver	tic (F18) ((MLRA 15	0A, 150B)		
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 149	9A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (F20) (MLR	A 149A, 153C, [,]	153D)
Dark Su	ırface (S7) (LRR P, S	s, T, U)						
Restrictive	Layer (if observed):							
Type:								
Depth (in	ches):		_				Hydric Soil P	resent? Yes 🖍 No
Remarks:	,							
Hydric soil pr	esent							
ı								
ı								



Photo 1
Wetland data point whlc006f_w facing north



Photo 2
Wetland data point whlc006f_w facing east



Photo 3
Wetland data point whlc006f_w facing south



Photo 4
Wetland data point whlc006f_w facing west

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline		City/County: Halifa	ax	Sampling Date: 12/17/2014			
Applicant/Owner: DOMINION				Sampling Point: whlc006_u			
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Hill Top							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Winton fine sandy loa	m, 25 to 45 percent sl		Long NWI classi				
Are climatic / hydrologic conditions on the s	ite typical for this time						
Are Vegetation, Soil, or Hyd	* *	-					
Are Vegetation, Soil, or Hyd			(If needed, explain any answ				
SUMMARY OF FINDINGS – Attac							
	<u> </u>	,	<u> </u>	, ,			
Hydric Soil Present?	Yes No• Yes No _•	, 10 1110 04111					
	Yes No		etland? Yes	No			
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indi	icators (minimum of two required)			
Primary Indicators (minimum of one is req			Surface So				
Surface Water (A1)	Aquatic Fauna			/egetated Concave Surface (B8)			
High Water Table (A2)	Marl Deposits			Patterns (B10)			
Saturation (A3)	Hydrogen Sul	fide Odor (C1) :ospheres along Living F		ı Lines (B16) on Water Table (C2)			
Water Marks (B1) Sediment Deposits (B2)	Oxidized Rniz	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	urrows (C8)			
Orift Deposits (B3)		leduction in Tilled Soils (Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin Muck Su			nic Position (D2)			
Iron Deposits (B5)	Other (Explain		Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)			Sphagnum	n moss (D8) (LRR T, U)			
Field Observations:	,						
		ches):					
		ches):					
(includes capillary fringe)		iches):	Wetland Hydrology Pres	ent? Yes No			
Describe Recorded Data (stream gauge, r	nonitoring well, aerial	photos, previous inspec	tions), if available:				
Remarks:							
No wetland hydrology present							

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. Quercus falcata	40	Yes	FACU	That Are OBL, FACW, or FAC:1 (A)
2. Fagus grandifolia	25	Yes	FACU	T
Pinus taeda	10	No	FAC	Total Number of Dominant Species Across All Strata: 3 (B)
4. Quercus alba	10	No	FACU	Openies / toross / tir otrata.
				Percent of Dominant Species That Are ORL FACW or FAC: 33.3333333 (A/R)
5				That Are OBL, FACW, or FAC: 33.33333333 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	85	= Total Cov	er	OBL species X I =
50% of total cover: 42.5	20% of	total cover:	. 17	FACW species x z =
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
1 Carpinus caroliniana	10	Yes	FAC	FACU species75
···				UPL species0 x 5 =0
2				Column Totals: 95 (A) 360 (B)
3				(b)
4				Prevalence Index = B/A = 3.78
5				Hydrophytic Vegetation Indicators:
6				
7.				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
8	10			3 - Prevalence Index is ≤3.0 ¹
_		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5	20% of	total cover:	. 2	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
2				Definitions of Four Vegetation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	0	= Total Cov	er	
50% of total cover:		total cover:	^	
50 % of total cover.	20% 01	total cover.	· ——	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:		rieseiit: iesiio
Remarks: (If observed, list morphological adaptations below	w).			
(,	,			

SOIL Sampling Point: whlc006_u

Depth	cription: (Describe to Matrix			x Feature				•	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remar	ks
0-7	2.5 Y 6/6	100		_			L		
7-14	10 YR 5/8	100					L		
	·								
				_					
				_					
	· 				-				
1							2		
	Concentration, D=Depl Indicators: (Application)					ains.	² Location: PL=F Indicators for P		
Histoso		able to all L	Polyvalue Be			DD S T II		-	inc sons .
·	pipedon (A2)		Tolyvalde Be					(A10) (LRR S)	
	listic (A3)		Loamy Muck						de MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)				19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					Bright Loamy So	oils (F20)
_	Bodies (A6) (LRR P,		Redox Dark				(MLRA 15		
	ucky Mineral (A7) (LR resence (A8) (LRR U		Depleted Da Redox Depre					Material (TF2) w Dark Surface (TF12)
·	uck (A9) (LRR P, T)	,	Marl (F10) (L		0)			ain in Remarks)	11 12)
	ed Below Dark Surface	e (A11)	Depleted Oc		(MLRA 1	51)	010. (2.,p.)		
Thick D	ark Surface (A12)		Iron-Mangan	iese Mass	es (F12) (LRR O, P,		of hydrophytic v	-
	Prairie Redox (A16) (N					, U)		nydrology must b	
-	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric			OA 450D)	unless di	sturbed or proble	ematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Flo				9Δ\		
-	d Matrix (S6)						ممر A 149A, 153C, 153I	D)	
	urface (S7) (LRR P, S	, T, U)			, (, (, , , , , , , , , , , , , , , , , , , ,	-,	
Restrictive	Layer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Pres	ent? Yes	No
Remarks:									
No hydric so	il present								



Photo 1 Upland data point whlc006_u facing north



Photo 2 Upland data point whlc006_u facing east



Photo 3
Upland data point whlc006_u facing south



Photo 4
Upland data point whlc006_u facing west

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	City/County: Halifax		Sampling Date: 11/18/2014
Applicant/Owner: DOMINION		State: NC	Sampling Point: whlc001f_w
	Section, Township, Ra		
Landform (hillslope, terrace, etc.): Depression			
Subregion (LRR or MLRA): P	2000 Teller (correave, 1000 at	Lang: -77.58825123	Glope (70)
Soil Map Unit Name: Rains fine sandy loam, 0 to 1 p	percent slopes	Long.	Datum. Need to be
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are	"Normal Circumstances" pr	resent? Yes No
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If n	eeded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling point	locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sampler		
	/ No		
	within a Wetla	nd? Yes	No
Remarks:	<u>'</u>		
Hardwood swamp that recives input from another for agricultural field and a dirt road are located along the feet outside the corridor.	ne border of the wetland. The wetland cor	nect to whig001 through a	culvert under the road about 50
HYDROLOGY			
Wetland Hydrology Indicators:			ors (minimum of two required)
Primary Indicators (minimum of one is required; ch		Surface Soil (, ,
<u> </u>	Aquatic Fauna (B13)		etated Concave Surface (B8)
	Marl Deposits (B15) (LRR U)	Drainage Patt	
	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Root	Moss Trim Lir	
	Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4)	s (C3) Dry-season v Crayfish Burro	Vater Table (C2)
· · · · · —	Recent Iron Reduction in Tilled Soils (C6)	 •	sible on Aerial Imagery (C9)
	Thin Muck Surface (C7)	✓ Geomorphic F	
	Other (Explain in Remarks)	Shallow Aquit	` '
Inundation Visible on Aerial Imagery (B7)	,	FAC-Neutral	` '
Water-Stained Leaves (B9)		Sphagnum m	oss (D8) (LRR T, U)
Field Observations:			
	Depth (inches): 4		
	Depth (inches): 0		
	Depth (inches): 0 W	etland Hydrology Present	? Yes <u>/</u> No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspection:	s), if available:	
	g, p, p	-,,	
Remarks:			
Wetland hydrology present			

20	Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)		Species?		Number of Dominant Species	
1. Nyssa biflora	70	Yes	OBL	That Are OBL, FACW, or FAC: 2 (A)	
2				Total Number of Dominant	
3				Species Across All Strata: 2 (B)	
4				Descent of Descinant Conscion	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/I	B)
6					_,
7.				Prevalence Index worksheet:	
8.				Total % Cover of: Multiply by:	
	70	= Total Cove	r	OBL species x 1 = 145	
50% of total cover:35		total cover:	1/	FACW species0 x 2 =0	
	20 /0 01	total cover.		FAC species 5 x 3 = 15	
/				FACU species0 x 4 =0	
1				UPL species 0 x 5 = 0	
2				Column Totals: 150 (A) 160 (B	۲)
3				(1)	• •
4				Prevalence Index = B/A =1.06	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				✓ 2 - Dominance Test is >50%	
8				✓ 3 - Prevalence Index is ≤3.0 ¹	
	0	= Total Cove	r		
50% of total cover:0		total cover:	^	Problematic Hydrophytic Vegetation ¹ (Explain)	
Herb Stratum (Plot size:5)	20 /0 01	10101 00101.		1	
1 Persicaria setacea	60	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. Scirpus cyperinus	15	No -	OBL		
3. Acer rubrum	5	No No	FAC	Definitions of Four Vegetation Strata:	
3. Acer rubrum			FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)	or
4				more in diameter at breast height (DBH), regardless of	of
5				height.	
6				Sapling/Shrub – Woody plants, excluding vines, less	3
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb – All herbaceous (non-woody) plants, regardles	
9.				of size, and woody plants less than 3.28 ft tall.	13
10					
11.				Woody vine – All woody vines greater than 3.28 ft in	I
				height.	
12	80	= Total Cove			
50% of total cover: 40			40		
30 % of total cover.	20% of	total cover:			
Woody Vine Stratum (Plot size: 30)					
1					
2					
3					
4					
5				Hydrophytic	
		= Total Cove	r	Vegetation	
50% of total cover:0				Present? Yes No No	
Remarks: (If observed, list morphological adaptations below		-			
rtomane. (Il oboorvou, liet morphological adaptatione bole	,.				

SOIL Sampling Point: whlc001f_w

Depth	Matrix			x Feature			the absence of	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	2.5 Y 3/3	100					SICL	
3-12	2.5 Y 4/1	95	7.5 YR 4/6	5	С	PL	SICL	
	·							
	·			· ·				
	Concentration, D=Depl					ains.		PL=Pore Lining, M=Matrix.
-	Indicators: (Applica	able to all						for Problematic Hydric Soils ³ :
Histoso	` '		Polyvalue Be					uck (A9) (LRR O)
	Epipedon (A2) Histic (A3)		Thin Dark Sι Loamy Muck					uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		. 0)		nt Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)		✓ Depleted Ma		1 2)			ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T, U)	Redox Dark	. ,	6)			A 153B)
_	ucky Mineral (A7) (LR			•	,		•	rent Material (TF2)
Muck P	resence (A8) (LRR U)	Redox Depre	essions (F	8)		Very Sh	nallow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (E	Explain in Remarks)
	ed Below Dark Surface	e (A11)	Depleted Oc					
	ark Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	Prairie Redox (A16) (N					, U)		and hydrology must be present,
	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric			0A 4E0D\	unie	ss disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Flo				DA)	
	d Matrix (S6)						A 149A, 153C,	153D)
	urface (S7) (LRR P, S	. T. U)	Anomalous L	Jilgili Loa	Try Cons (20) (MEIX)	A 143A, 1330,	1000)
	Layer (if observed):	, -, -,						
Type:	.,. (,							
. , , ,								Present? Yes V No No
Denth (ir	oches).						Hydric Soil I	
	nches):						Hydric Soil I	Present? Yes No
Remarks:	<u> </u>		<u> </u>				Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes NO
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No
Remarks:	<u> </u>						Hydric Soil I	Present? Yes No No



Photo 1
Wetland data point WHLC001f_w facing north



Photo 2
Wetland data point WHLC001f_w facing east



Photo 3
Wetland data point WHLC001f_w facing south



Photo 4
Wetland data point WHLC001f_w facing south

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Atlantic Coast Pipeline	City/Co	unty: Halifax		Sampling Date:	11/18/2014
Applicant/Owner: Dominion			State: NC	Sampling Point:	whlc001_u
Investigator(s): Team C	Section	, Township, Rai	nge: No PLSS in this are	a	
			(concave, convex, none):		
Slope (%): 0 Lat: 36.38817899	Long:	77.58851611		Datum: WGS 1	984
Soil Map Unit Name: Marlboro fine sandy loam, 2 to 6 percent slo			NWI classific		
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes				
Are Vegetation, Soil, or Hydrology significal	-		'Normal Circumstances" p	-	✓ No
Are Vegetation, Soil, or Hydrology naturally			eeded, explain any answe		110
SUMMARY OF FINDINGS – Attach site map show				•	eatures, etc.
Hydrophytic Vegetation Present? Yes No		J	,	,	,
Hydric Soil Present? Yes No		s the Sampled	Area		
Wetland Hydrology Present? Yes No		within a Wetlar	nd? Yes	No	_
Remarks:					
Upland data point located down slope froman agricultural field					
VEGETATION – Use scientific names of plants.					
Absol		nant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size:)	over <u>Speci</u> 60 Yes		Number of Dominant Sp		1 (4)
			That Are OBL, FACW, o	or FAC:	(A)
3			Total Number of Domin Species Across All Stra		3 (B)
4			Species Across Air Stra	.ua	(B)
5			Percent of Dominant Sp That Are OBL, FACW, of		333333 (A/B)
Sopling/Shrub Stratum (Blot size: 15	0 = Total	Cover			(/4/5)
Sapinig/Siliub Stratum (Flot size)			Prevalence Index work		
1	——		Total % Cover of:	Multip	10
2			OBL species O	x 1 = x 2 =	0
3			FAC species 50		150
5.			FACU species 20		80
5	Total	Cover	UPL species 70	x 5 =	350
Herb Stratum (Plot size:)		FAC	Column Totals:15	0 (A)	590 (B)
1. Eupatorium serotinum 40 2 Lonicera japonica 20			Prevalence Index	- B/A -	3.93
2. Lorlicera japonica 20			Hydrophytic Vegetation		
Hydrocotyle umbellata			1 - Rapid Test for H		etation
5. Smilax rotundifolia			2 - Dominance Tes		
6			3 - Prevalence Inde	ex is ≤3.0 ¹	
7			4 - Morphological A		
8				s or on a separate	
9			Problematic Hydrop	onytic vegetation	(Explain)
10			¹ Indicators of hydric soi	I and wetland hw	drology must
Woody Vine Stratum (Plot size:) —————————————————————————————	0 = Total	Cover	be present, unless distu		
1			Undranbutia		
2.			Hydrophytic Vegetation		•
0	Total	Cover	Present? Yes	s No_	
Remarks: (Include photo numbers here or on a separate sheet.)			1		

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SOIL Sampling Point: whlc001_u

Profile Des	scription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	the absence of ind	licators.)
Depth	Matrix		Redo	ox Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-3	10 YR 4/3	100					L	
3-7	10 YR 4/4	100					SL	
7-14	10 YR 5/6	100					s	
¹ Type: C=C	Concentration, D=Dep	letion. RM=Re	educed Matrix. M	S=Masked	d Sand Gra	ains.	² Location: PL=	Pore Lining, M=Matrix.
	I Indicators:	,	,					roblematic Hydric Soils ³ :
Histoso	ol (A1)		Sandy	Gleyed Ma	atrix (S4)		Coast Prairie	Redox (A16)
Histic E	Epipedon (A2)			Redox (S5			Dark Surface	e (S7)
Black H	Histic (A3)		Strippe	d Matrix (S	66)			ese Masses (F12)
	en Sulfide (A4)			Mucky Mir	, ,			Dark Surface (TF12)
_	ed Layers (A5)			Gleyed Ma			Other (Expla	in in Remarks)
ı —	luck (A10)	- (444)		ed Matrix (
ı —	ed Below Dark Surfac Oark Surface (A12)	e (A11)	_	Dark Surfa	٠,		3Indicators of bu	drophytic vegetation and
_	Mucky Mineral (S1)			ed Dark Su Depressio	, ,			ology must be present,
	lucky Peat or Peat (S:	3)	Redox	Depressio	115 (1-0)		-	bed or problematic.
	Layer (if observed):							and or problematic.
Type:								
	nches):		_				Hydric Soil Prese	ent? Yes No
Remarks:								
No hydric se	oil nresent							
No Hydrio o	on present							
LVDBOLO								
HYDROLO								
	ydrology Indicators:							
	icators (minimum of o	ne is required						icators (minimum of two required)
_	e Water (A1)			ained Leav	, ,			oil Cracks (B6)
ı —	ater Table (A2)		— .	auna (B13	,		_ ,	Patterns (B10)
ı —	tion (A3)			atic Plants	, ,		— ,	on Water Table (C2)
ı —	Marks (B1)		Hydrogen				Crayfish B	, ,
ı	ent Deposits (B2)		_	•		ing Roots (· · —	Visible on Aerial Imagery (C9)
I —	eposits (B3)		Presence		•	,		Stressed Plants (D1)
1	lat or Crust (B4)		Recent Ire			d Soils (C6	. — .	nic Position (D2)
ı —	eposits (B5)		Thin Mucl				FAC-Neut	ral Test (D5)
ı —	tion Visible on Aerial I		Gauge or		. ,			
	ly Vegetated Concave	e Surface (B8)	Other (Ex	plain in Re	emarks)			
Field Obse								
Surface Wa			Depth (ir					
Water Table			Depth (ir					.4
Saturation F		es No	Depth (ir	nches):		_ Wetla	and Hydrology Pres	sent? Yes No
l (includes ca	apillary fringe)		oring well aerial	nhotoe nr	evioue ine	nections)	if available:	
		naliae monit						
	ecorded Data (stream	gauge, monit	oring well, aerial	J	CVIOUS IIIS	pootiono),		
Describe Re		gauge, monit	oring well, aerial			positorio),		
Describe Re	ecorded Data (stream	gauge, monit	oring well, aerial		CVIOUS IIIS	pootiono),		
Describe Re		gauge, monit	oning wen, aenai		CVIOUS IIIS	pootiono),		
Describe Re	ecorded Data (stream	gauge, monit	oring well, aerial		evious ins	postolioj, i		

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Photo 1 Upland data point WHLC001_u facing west



Photo 2
Upland data point WHLC001_u facing south



Photo 3
Upland data point WHLC001_u facing east



Photo 4
Upland data point WHLC001_u facing north

WEILAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: HCP City/County: Halifax Sampling Date: 10/07/2
Applicant/Owner:
Investigator(s):
Landform (hillslope, terrace, etc.): Swelet deposition Local relief (concave, convex, none): Flat Slope (%): Flat
TWY Glassification. 19 11 B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? 🏑 (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Within a Wetland? Yes No No Within a Wetland?
The sampling point is located within a wetland.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) — Aquatic Fauna (B13) — Aquatic Fauna (B13)
High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10)
Saturation (A3) — Hydrogen Sulfide Odor (C1) — Moss Trim Lines (B16)
✓ Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction 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 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):
Depart (incles).
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
Hydrology present.

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

Sampling Point: while 37 fu

Tree Stratum (Plot size: 30	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree officiality (1 lot size.		Species?	Secretaria de la constitución de	Number of Dominant Species 4
1. Nyssa biflora	30	Y	OBL	That Are OBL, FACW, or FAC:(A)
2. Acer rubrum	20	Y	FAL	Total Number of Dominant
3				Total Number of Bollinaria
4				Species Across All Strata: (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
8				Total % Cover of: Multiply by:
	50	= Total Cov	/er	OBL species x 1 =
50% of total cover: 25				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 3 6)		total oover		FAC species x 3 =
1. Liquidambar Styraciflua	70	15	FAC	FACU species x 4 =
2.			1710	UPL species x 5 =
				Column Totals: (A) (B)
3				Column Totals (A) (B)
4	·			Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				
8				✓2 - Dominance Test is >50%
	70	= Total Cov		3 - Prevalence Index is ≤3.0¹
50% of total cover:	200	= Total Cov	er 🗸	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of	total cover		1992
Herb Stratum (Plot size: 30)	p		La.	Indicators of hydric soil and wetland hydrology must
1. Juneus Offersus			FACW	be present, unless disturbed or problematic.
2. Bochmarea Extindrica			FACW	Definitions of Four Vegetation Strata:
3. Commeling communis	40	Y	FAC	-
4	- A			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				
6				Sapling/Shrub – Woody plants, excluding vines, less
7			1	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				Mandanina Allumadu da a mandanina a COCC
11		All		Woody vine – All woody vines greater than 3.28 ft in height.
12.				no.gru
	47	= Total Cov		
50% of total cover: 23	7	- Total Cov	er a J	
50% of total cover:	• > 20% of	total cover:	1,7	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
4		-		
5				
0.		750 N W W		Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:	20% of	total cover:		riesentr les No
Remarks: (If observed, list morphological adaptations belo	w).			
Hydrophytic Vegetation	130	lomin	est.	
				1

Sampling Point: whiha37,fw

Profile Desi	cription: (Describe	to the depth r	needed to docu	ment the i	ndicator	or confirm	the absence o	of indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks	
7 -10	104/4/1		UYR4/6	15			loana.		
1-718	25485/z		54R518	20			loam		
	-								
						-			
					-	_			
	-								
'Type: C=C	oncentration, D=Depl	etion, RM=Re	duced Matrix, M	S=Masked	Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Mate	rix.
Hydric Soil	Indicators: (Applica	able to all LRI	Rs, unless othe	rwise note	ed.)		Indicators fo	or Problematic Hydric	
- Histosol	(A1) Dipedon (A2)		Polyvalue Be	elow Surfac	ce (S8) (L	RR S, T, U		ıck (A9) (LRR O)	
Black Hi		-	Thin Dark Su	urface (S9)	(LRR S,	T, U)		ick (A10) (LRR S)	
	en Sulfide (A4)	9. -	Loamy Muck Loamy Gleye	y Millerai (ed Matrix (i	(LKK	0)	Reduced	d Vertic (F18) (outside	MLRA-150A,B)
Stratified	d Layers (A5)		Depleted Ma		-)			nt Floodplain Soils (F19 ous Bright Loamy Soils	
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F				A 153B)	(. 20)
5 cm Mu	icky Mineral (A7) (LR esence (A8) (LRR U)	R P, T, U) _	Depleted Da				Red Par	ent Material (TF2)	
1 cm Mu	esence (A8) (LRR U) ick (A9) (LRR P, T)	-	Redox Depre Marl (F10) (L		3)			allow Dark Surface (TF	12)
Depleted	Below Dark Surface	(A11)	Depleted Oc		MI RA 1	(1)	Other (E	xplain in Remarks)	
Thick Da	ark Surface (A12)		Iron-Mangan	ese Masse	s (F12) (I	-RR O. P.	T) ³ Indicat	tors of hydrophytic vege	etation and
Coast Pi	rairie Redox (A16) (M	ILRA 150A) _	Umbric Surfa	ice (F13) (I	LRR P, T,	U)		nd hydrology must be p	resent,
Sandy N	lucky Mineral (S1) (L	RR O, S) _	Delta Ochric	(F17) (ML	RA 151)		unles	s disturbed or problema	
	edox (S5)	-	Reduced Ver	rtic (F18) (I	VILRA 15	0A, 150B)			
	Matrix (S6)	-	Piedmont Flo	oodpiain Sc Bright Loan	olls (F19)	(MLRA 14:	9A) A 149A, 153C, 1	(F2D)	
Dark Sui	face (S7) (LRR P, S,	T, U)	/ wioinalous L	night Loan	ly Solis (r	20) (WILK	A 149A, 153C, 1	153D)	
Restrictive L	ayer (if observed):						I		H6
Туре:			-						
Depth (inc	ches):		_				Hydric Soil P	resent? Yes <u></u>	No
Remarks:									
11	1 .		-1		48				
My	dric soil	Pres	ent.						
		,							
								(4)	48

whlh037f_w



Wetland data point whlh037f_w facing east



Wetland data point whlh037f_w facing south

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: HCP City/County: Hali Fax Sampling Date: 10/06/Z
Applicant/Owner: Dominion State: X/C Sampling Point: whith 03
Investigator(s): Section, Township, Range: Sampling Point:
Landform (hillslope, terrace, etc.): 510pe Local relief (concave, convex, none): 510pe Subregion (LRR or MLRA): Lat: 36°23′15.745′Long: 77°35′16.145″ Datum: 66-5
Soil Man Unit Name: K = 1
WWW oldcomoditori.
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Wo Are "Normal Circumstances" present? Yes _< No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Yes No Remarks:
The sampling point is not located in a wetland.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is 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 Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry Season Water Table (C3)
Codiment D. 11 (DD)
Data David (Data)
Thin Muck Surface (C7) — Algal Mat or Crust (B4) — Thin Muck Surface (C7) — Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No _ Depth (inches): Wetland Hydrology Present? Yes No _
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
Hydrology not present.

Sampling Point: whih 637_ w

2.0	Absolute Domina	ant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30	% Cover Specie		
1. Liquidam bar styraciflua	10 Y	FAC	Number of Dominant Species 7
2. Acer vubrum			That Are OBL, FACW, or FAC:(A)
2. Teer vabrua	70 Y	FAC	Total Number of Dominant
3. Pinus taed	10 Y	FAC	Species Across All Strata: (B)
4	Martin Committee Co		(b)
5.			Percent of Dominant Species
5			Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5 (A/B)
6			
7			Prevalence Index worksheet:
8			Total % Cover of: Multiply by:
	30 = Total (OBL species x 1 =
15	= Total (Jover	
50% of total cover: 15	20% of total co	ver:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30)			FAC species x 3 =
1. Heer vubrum	10 Y	PAC	FACU species x 4 =
2. Pinus Freda	1 V	PAG	UPL species x 5 =
			Column Totals: (A) (B)
3. Liquidamba- 5tyracitlua	70 4	FAC	(A)(B)
4			Prevalence Index = B/A =
5		-	
6			Hydrophytic Vegetation Indicators:
7.			1 - Rapid Test for Hydrophytic Vegetation
7			≥ 2 - Dominance Test is >50%
8			3 - Prevalence Index is ≤3.0¹
	25 = Total C	Cover	Problematic Hydrophytic Vegetation¹ (Explain)
	5 20% of total cov	/er: 5	Problematic Hydrophytic vegetation (Explain)
Herb Stratum (Plot size: 30			
1. Festuca Sp.	yo V	EN	¹Indicators of hydric soil and wetland hydrology must
DI ACA	70	TAC	be present, unless disturbed or problematic.
2. Polygonum hydropiperoides	20 4	NI	Definitions of Four Vegetation Strata:
13 -			
4	,		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5			more in diameter at breast height (DBH), regardless of height.
5	-		neight.
6			Sapling/Shrub – Woody plants, excluding vines, less
7			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8	99—391		1000 II M
9.			Herb – All herbaceous (non-woody) plants, regardless
9			of size, and woody plants less than 3.28 ft tall.
10			Woody vine – All woody vines greater than 3.28 ft in
11.			height.
12		CONTRACTOR OF THE STATE OF THE	2 100
	66 = Total C	Cover	
500/ of total 7			
50% of total cover: 32	20% of total cov	er: <u>(</u>	
Woody Vine Stratum (Plot size: 30)			
1			
2			
3			
4			
5			Hydrophytic
	= Total C	over	Venetation
50% of total cover:			Present? Yes No
		er	
Remarks: (If observed, list morphological adaptations below	v).		
Hydrophytic Vegetation is	dans	R	2
0-)0-100 (3	UI UVE COME		
35 °€			

Profile Description: (Descript to the donth wooded to description)	
Profile Description: (Describe to the depth needed to document the indicator or confirm	n the absence of indicators.)
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type ¹ Loc ²	
0-4 LOYK 3/2	
4-10 10/R4/3	18am
	loan
10->18 101K 5/8	loan
1-	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, L Thin Dark Surface (S9) (LRR S, T, U)	
	2 cm Muck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	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)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P,	T) 3Indicators of hydrauby dia variation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)	e
Sandy Redox (S5) — Piedmont Floodplain Soils (F19) (MLRA 14	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLR Dark Surface (S7) (LRR P, S, T, U)	A 149A, 153C, 153D)
Baik ballace (57) (EKK P, 3, 1, 0)	
Restrictive Layer (if observed):	
Restrictive Layer (if observed):	
Restrictive Layer (if observed): Type:	*
Restrictive Layer (if observed): Type: Depth (inches):	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No Y
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No Y
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No Y
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No Y
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Hydric Soil Present? Yes No K

whlh037_u



Upland data point whlh037_u facing north



Upland data point whlh037_u facing west

whlh037 soils



Wetland/upland soils

WHLG001F_W

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region City/County: Haifax Sampling Date: Project/Site: Sampling Point: Applicant/Owner: ___ Investigator(s): Section, Township, Range:_ Local relief (concave, convex, none): Swale Landform (hillslope, terrace, etc.): 23' 08.233 Long: 779 35 Subregion (LRR or MLRA): Lat: Soil Map Unit Name: _ NWI classification: No _____ (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _ Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? No_ Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) __ Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) ___ Hydrogen Sulfide Odor (C1) High Water Table (A2) Drainage Patterns (B10) ✓ Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) __ Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) __ Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) _ Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) ✓ Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Yes _ No _ Depth (inches): Surface Water Present? Yes _ No ____ Depth (inches):__ Water Table Present? Saturation Present? Wetland Hydrology Present? Yes _____ Yes ____ No ____ Depth (inches):_ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: flydrology present.

VEGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: 600	i e
Tree Stratum (Plot size:)		Dominant		Dominance Test worksheet:	
1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
2				Total Number of Dominant Species Across All Strata:	(B)
4 5				Percent of Dominant Species	(A/E
5					(A)
7		-		Prevalence Index worksheet:	
	- market	= Total Cov		Total % Cover of: Multiply by:	
50% of total cover:1.5	20% of	f total cover	6	OBL species x 1 =	
Sapling/Shrub Stratum (Plot size: 3 6)	1 4			FACW species x 2 =	
1. Ligardon Ser Stypacifing			FAC	FAC species x 3 =	
2. Balande braz Magnolia Verginiani	5_		EACH	FACU species x 4 =	
3. 184334 59/ referen	_5_		FAC	UPL species x 5 =	
4. franing populy (van-	10	<u> </u>	FACW	Column Totals: (A)	(E
5			-	Prevalence Index = B/A =	
7. Lieuidanham wroisellea	E	-7	ENC	Hydrophytic Vegetation Indicators:	
of all and a service and a ser			FACW	1 - Rapid Test for Hydrophytic Vegetation	
8. Vaccinina commitosum		·	PALW	2 - Dominance Test is >50%	
9	12		-	3 - Prevalence Index is ≤3.01	
50% of total cover:		= Total Cov		4 - Morphological Adaptations ¹ (Provide suppo	orti
~	20% of	r total cover		data in Remarks or on a separate sheet)	
1	10	. /		Problematic Hydrophytic Vegetation¹ (Explain	1)
1. Sagitlavia latifolia	12	· 	OBL	1	5.
2. Agean along did sine Murdania Koesak		·	OBL	¹Indicators of hydric soil and wetland hydrology mu	ust
3. Avandinaria gigantes	_5_		EACW	be present, unless disturbed or problematic.	uoi
4. (Commence Spain .				Definitions of Four Vegetation Strata:	
5. Covex intumesens	_5		FACW	1	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.	
8					
9				Sapling/Shrub – Woody plants, excluding vines, I than 3 in. DBH and greater than or equal to 3.28 ft	les
10				m) tall.	. (
11	45	= Total Co	/er 🔿	Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.	dles
50% of total cover: 22.	20% o	f total cover		NA	e :
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 f height.	L II
1. None					
2					
3					
4					
5				Hydrophytic Vegetation	
		= Total Co		Present? Yes No	
50% of total cover:	20% o	f total cover	:		
Remarks: (Include photo numbers here or on a separate s	- 14 00 00 0 0 0 0 0 M				
Hydrophylia Veg. is don	19 posts of				

C	0	ı	1
J	v	1	ᆫ

Sampling Point: 6-001 _ w

Profile Description: (Describe to the depth r	eeded to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
6-4" 2.54 3/2		1000
5->16 > 5451, 85	104R 578 15	1000
		
		3 (10 to 40
¹ Type: C=Concentration, D=Depletion, RM=Re	duced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147,	148) Coast Prairie Redox (A16)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147, 148)	(MLRA 147, 148)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
	Depleted Matrix (F3)	(MLRA 136, 147)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N,	
MLRA 147, 148)	MLRA 136)	3
Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)	³ Indicators of hydrophytic vegetation and
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14	
Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:	- 1)	
Depth (inches):	-c *	Hydric Soil Present? Yes No
Remarks:		
Hydric Soil preso	6	
Hudric So. Preso	J.	
17		
7471 CARL		
[9		



 $WHLG001F_w-Facing\ North\ Forested\ Wetland$



WHLG001F_w – Facing East Forested Wetland

WETLAND DETERMI	NATION DATA FORM	– Eastern Mountair	is and Piedmo	ont Region
Project/Site: Doning	City/C	county: Halifex		Sampling Date: WHLG-0
Applicant/Owner: Dominion			2.7.7	Sampling Point:
Investigator(s): DP Wes F	Section	on, Township, Range:		
9 , ,				Clara (0/): 2
Landform (hillslope, terrace, etc.):	Local reli	ier (concave, convex, non	e): <u> </u>	Slope (%):
1 / / /				
Soil Map Unit Name: Lynchburg for	ne sondy wom	n	NWI classifica	ation:
Are climatic / hydrologic conditions on the site	typical for this time of year? Y	'es <u></u> No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrold	ogy significantly distur	bed? Are "Normal	Circumstances" pr	resent? Yes <u></u> No
Are Vegetation, Soil, or Hydrold	ogy naturally problema	atic? (If needed, e	xplain any answers	s in Remarks.)
SUMMARY OF FINDINGS – Attach				Det Germanner Historian (1900)
		iping point locatio	ns, transects,	important leatures, etc.
[No	Is the Sampled Area		222
	8 NoX	within a Wetland?	Yes	NoX
	8 No			
Remarks: Upland Mixed 1 Not all three p	personal / piece	et.		
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil C	Cracks (B6)
Surface Water (A1)	True Aquatic Plants ((B14)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)	— Hydrogen Sulfide Od	or (C1)	Drainage Patt	erns (B10)
Saturation (A3)	Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Lir	nes (B16)
Water Marks (B1)	Presence of Reduced			Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	43 M - 1	Crayfish Burro	125 325
Drift Deposits (B3)	Thin Muck Surface (0	59		sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Rer	narks)	Geomorphic F	ressed Plants (D1)
Inundation Visible on Aerial Imagery (B7	1		Shallow Aquit	3 F. G. 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Water-Stained Leaves (B9)	,			phic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral	전하다 하다 보다 있었다. 사람들이 가장 다시 나가 있다.
Field Observations:				
Surface Water Present? Yes N	lo K Depth (inches):			
1	lo K Depth (inches):			Oke
	lo <u></u> Depth (inches):	Wetland H	ydrology Present	t? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, more	nitaring wall, parial photos, pro	vious inspections) if ava	ilable:	
Describe Recorded Data (stream gauge, mor	illoring well, aerial priotos, pre	evious irispections), ii ava	liable.	
Remarks:			m - / m. /	
No hydrologgan	Dicators pres	ent		

Tree Stratum (Plot size: 50) 1. A were as allow 2. A were as Falcata 3. Piones tanda 4. 5. 6. 7. 50% of total cover: 30 Sapling/Shrub Stratum (Plot size: 30)	20			Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: (B) Percent of Dominant Species
1. Quercas alba 2. Auercas Galcafa 3. Pianas faeda 4. 5. 6. 7. Sapling/Shrub Stratum (Plot size: 30)	20	¥	FACU FACU	That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: (B)
3. P: 6. 50% of total cover: 30 Sapling/Shrub Stratum (Plot size: 30)	00		2000	Species Across All Strata: (B)
4	(pO :			
5	(00)			Percent of Dominant Species
7	60			That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 30)				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 30)		= Total Cove	er	Total % Cover of:Multiply by:
Sapling/Shrub Stratum (Plot size: 30)				OBL species x 1 =
				FACW species x 2 =
1. Then space	10	\vee	FAC	FAC species x 3 =
2. Liquidamper Styracifica	5	7	FAC	FACU species x 4 =
3			-	UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				X 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0¹
and the same	15	= Total Cove	er	4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 7.5	_ 20% of	total cover:	3	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 30)	4000			The state of the control of the state of the
1. Vitis rotundifolio				Problematic Hydrophytic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub - Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11	10	= Total Cov		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover:) Woody Vine Stratum (Plot size:)	20% of	total cover:	2_	Woody vine – All woody vines greater than 3.28 ft in
1				height.
2				
3				
				Andrew March 1981
4		-	S	Hydrophytic
5				Vegetation Present? Yes No
50% of total cover:		= Total Cov		, , , , , , , , , , , , , , , , , , ,
Remarks: (Include photo numbers here or on a separate sh				L

Sampling Point: 6001_4

Profile Description: (Describe to	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 I	_oc² Texture Remarks
0-5 2545/2		/04 Mm
5->16 2.546/4		6 a da-
-		
	O	
		
¹Type: C=Concentration D=Deple	letion, RM=Reduced Matrix, MS=Masked Sand Grains	s. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	etion, TWI-Teduced Matrix, MO-Masked Carlo Crairi	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLF	
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
Stratified Layers (A5)	Depleted Matrix (F3)	(MLRA 136, 147)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface	e (A11) Depleted Dark Surface (F7)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1) (LI		R N,
MLRA 147, 148)	MLRA 136)	**************************************
Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136,	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (M	
Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 1	27, 147) unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes NoX
Remarks:		
11 . 1 500	1 not present	
Hyaric)	lioi presect	



WHLG001_u – Facing South Adjacent Upland



WHLG001_u - Facing West Adjacent Upland



WHLG001 – Representative Wetland and Upland Soils

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Halifax Count	ty	Sampling Date: 12/8/2015	
Applicant/Owner: Dominion				State: NC	Sampling Point: whlf001e_w	
nvestigator(s): SH, AS Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): swale						
Subregion (LRR or MLRA): P						
Soil Map Unit Name: Marlboro fine sand	v loam 2 to 6 n	_ Lat: ercent slones	Long	g:	None	
Are climatic / hydrologic conditions on the						
Are Vegetation, Soil, or F	lydrology	significantly disturb	ped? Are "Nor	mal Circumstances"	present? Yes No	
Are Vegetation, Soil, or H	lydrology	naturally problema	itic? (If neede	ed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - At	tach site ma	ap showing sam	pling point loca	ations, transects	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🗸	No	l- 11- 0			
Hydric Soil Present?		No	Is the Sampled Are within a Wetland?		No	
Wetland Hydrology Present?	Yes 🔽	No	within a wetiand?	res	NO	
Vegetation disturbances due to sheep. \	reg was uniden	unable, just stains lei	t, blowsed by slieep.	. No hags hung in pas	sture	
HYDROLOGY						
Wetland Hydrology Indicators:				<u> </u>	ators (minimum of two required)	
Primary Indicators (minimum of one is r	-			Surface Soil	, ,	
Surface Water (A1)		atic Fauna (B13)			egetated Concave Surface (B8)	
High Water Table (A2)		Deposits (B15) (LRF			atterns (B10)	
Saturation (A3) Water Marks (B1)	-	ogen Sulfide Odor (Cized Rhizospheres a		Moss Trim L	Water Table (C2)	
Sediment Deposits (B2)		ence of Reduced Iron		Crayfish Bu		
Drift Deposits (B3)		ent Iron Reduction in			/isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Muck Surface (C7)	` ,	<u>✓</u> Geomorphic		
Iron Deposits (B5)	Othe	er (Explain in Remark	s)	Shallow Aqu	uitard (D3)	
Inundation Visible on Aerial Imager	y (B7)			FAC-Neutra	l Test (D5)	
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)	
Field Observations:						
		Depth (inches):				
		Depth (inches):				
Saturation Present? Yes (includes capillary fringe)	No	Depth (inches):	Wetlar	nd Hydrology Prese	nt? Yes V No No	
Describe Recorded Data (stream gauge	e, monitoring we	ell, aerial photos, pre	vious inspections), if	available:		
Remarks:						

20	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2.				
3.				Total Number of Dominant Species Across All Strata: 1 (B)
4				Dercent of Deminent Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				0
		= Total Cove		0 0
50% of total cover:	0 20% of	total cover: _	0	FACW species x 2 = 30
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 = 0
1				FACU species x 4 =
2.				UPL species x 5 =
3				Column Totals:(A)(B)
4.				Prevalence Index = B/A =3
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	r	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	0 20% of	total cover:	0	1 robicinate riyarophytic vegetation (Explain)
Herb Stratum (Plot size:5)		=		1 Indicators of hydric coil and watland hydrology must
1 Solidago rugosa	10	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				John Mone of Four Pogotation Gradua
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5				more in diameter at breast height (DBH), regardless of height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Hart All hart account (a constant of a large to a constitution
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10.				
44				Woody vine – All woody vines greater than 3.28 ft in height.
12.				neight.
12.		= Total Cove		
	_		_	
50 % of total cover.	20% 01	total cover: _		
/ / / / / / / / / / / / / / / / / / /				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cove		Vegetation Present? Yes No
30 % of total cover:		total cover: _		
Remarks: (If observed, list morphological adaptations be	elow).			

SOIL Sampling Point: whlf001e_w

Profile Des	cription: (Describe	to the dep	th needed to docum	nent the ir	ndicator	or confirm	the absence of	of indicators.)
Depth	Matrix	0/		x Features		12	T t	Davida
(inches) 0-2	Color (moist) 2.5Y 4/1	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture SL	Remarks
-			7. FVD 2/4					
2-9	2.55/2Y	95	7.5YR 3/4	5		M	SL	
9-20	2.5Y 5/3	80	7.5YR 4/4	5	C	PL_	SC	
			10YR 5/6	15	С	M		
						-		
17			Deduced Metric MC		010		21 +:	Di Dana Linina M Matrix
			=Reduced Matrix, MS LRRs, unless other			ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histoso		bable to all	Polyvalue Be		•	RRSTII		luck (A9) (LRR O)
	pipedon (A2)		Tolyvalde Be					uck (A10) (LRR S)
	istic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye				Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Mar	` ,				lous Bright Loamy Soils (F20)
-	Bodies (A6) (LRR I		Redox Dark	•	,			A 153B)
	ucky Mineral (A7) (L resence (A8) (LRR I		Depleted Dar Redox Depre		. ,			rent Material (TF2) nallow Dark Surface (TF12)
	uck (A9) (LRR P, T)	•	Marl (F10) (L		,,			Explain in Remarks)
	d Below Dark Surface		Depleted Oct		(MLRA 1	51)		,
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P,		ators of hydrophytic vegetation and
	rairie Redox (A16) (, U)		and hydrology must be present,
-	Mucky Mineral (S1) (Gleyed Matrix (S4)	LRR O, S)	Delta Ochric Reduced Ver			0A 150B)	unie	ess disturbed or problematic.
	Redox (S5)		Piedmont Flo				9Δ)	
-	Matrix (S6)						A 149A, 153C,	153D)
	ırface (S7) (LRR P,	S, T, U)						ŕ
Restrictive	Layer (if observed)):						
Type:								
Depth (in	ches):						Hydric Soil I	Present? Yes No
Remarks:								



Photo 1
Wetland data point whlf001e_w facing south



Photo 2
Wetland data point whlf001e_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	County: Halifax County		Sampling Date:	12/8/2015
Applicant/Owner: Dominion				State: NC	Sampling Point:	whlf001_u
Investigator(s): SH, AS		Section	on, Township, Range: N			
Landform (hillslope, terrace, etc.): Te						ne (%)· 2
Subregion (LRR or MLRA): P						
Soil Map Unit Name: Marlboro fine sa	andy loam, 0 to 2 pe	rcent slopes	Long	NWI classific	cation: None	atum
Are climatic / hydrologic conditions or						
Are Vegetation, Soil,						No.
						110
Are Vegetation, Soil, C				explain any answe		onturos ete
SUMMARY OF FINDINGS –			iping point location	ons, transects	s, important i	eatures, etc.
Hydrophytic Vegetation Present?	Yes	No	Is the Sampled Area			
Hydric Soil Present?	Yes		within a Wetland?	Yes	No <u> </u>	
Wetland Hydrology Present? Remarks:	Yes	No				
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum o	f two required)
Primary Indicators (minimum of one	is required; check a	II that annly)		Surface Soil		i two required)
Surface Water (A1)	•	ic Fauna (B13)		Surface Soil		Surface (R8)
High Water Table (A2)		Deposits (B15) (LRI	S (1)	Sparsely ve	-	Surface (DO)
Saturation (A3)		gen Sulfide Odor (Moss Trim L		
Water Marks (B1)	-	-	long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		nce of Reduced Iro		Crayfish Bur		,
Drift Deposits (B3)	Recer	nt Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial In	nagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)		Geomorphic	Position (D2)	
Iron Deposits (B5)		(Explain in Remark	(S)	Shallow Aqu		
Inundation Visible on Aerial Ima	gery (B7)			FAC-Neutral	, ,	
Water-Stained Leaves (B9)				Sphagnum r	noss (D8) (LRR	Γ, U)
Field Observations:	N= V 5	Anna Alan (firansiana anna anna				
	No D					
	No [Hydrology Preser	-+2 Vaa	No 🗸
Saturation Present? Yes (includes capillary fringe)	No L	eptn (inches):	wetland r	hydrology Presei	nt? Yes	_ NO _ ·
Describe Recorded Data (stream ga	auge, monitoring wel	l, aerial photos, pre	vious inspections), if ava	ailable:		
Remarks:						

20		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.					
3.					Total Number of Dominant Species Across All Strata: 2 (B)
4					
5					Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6					
7					Prevalence Index worksheet:
8					Total % Cover of: Multiply by:
			= Total Cove		OBL species X 1 =
50%	of total cover:0	20% of	total cover:	0	FACVV species X Z =
Sapling/Shrub Stratum (Plot size:	15)				FAC species x 3 = 120
1					FACU species
2					UPL species
3					Column Totals: (A) (B)
4					Prevalence Index = B/A = 4.4
5	_				Hydrophytic Vegetation Indicators:
6					1 - Rapid Test for Hydrophytic Vegetation
7					2 - Dominance Test is >50%
8					3 - Prevalence Index is ≤3.0 ¹
	0	:	= Total Cove	_	Problematic Hydrophytic Vegetation ¹ (Explain)
	of total cover: 0	20% of	total cover:		
Herb Stratum (Plot size: 5 1. Trifolium repens)	30	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Festuca ovina		20	Yes	UPL	Definitions of Four Vegetation Strata:
3.					
4.					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5					height.
6					Sapling/Shrub – Woody plants, excluding vines, less
7					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8					Herb – All herbaceous (non-woody) plants, regardless
9					of size, and woody plants less than 3.28 ft tall.
10					Woody vine – All woody vines greater than 3.28 ft in
11					height.
12					
	0.5		= Total Cove		
50%	of total cover: 25	20% of	total cover:	10	
Woody Vine Stratum (Plot size:					
1					
2					
3					
4					
5					Hydrophytic
	0		= Total Cove		Vegetation Present? Yes No
	of total cover:0		total cover:	0	· · · · · · · · · · · · · · · · · · ·
Remarks: (If observed, list morpholo	gical adaptations below	w).			

SOIL Sampling Point: whlf001_u

		•					the absence of	,	
Depth (inches)	Matrix Color (moist)	<u></u> %	Color (moist)	ox Feature: %	s _Type ¹	Loc ²	Texture	Remarks	•
0-20	10YR 4/2	100	COIOI (IIIOISI)		i ype	LUC	SL	rtemarks	•
		·							
-	· -	· —— –							
_									
-		·							
1	-	· —— -							
	Concentration, D=Dep					ains.		=Pore Lining, M=Ma	
	Indicators: (Applic	able to all L			•			r Problematic Hydri	c Soils":
Histoso			Polyvalue B					k (A9) (LRR O)	
	pipedon (A2)		Thin Dark S					k (A10) (LRR S)	
	listic (A3)		Loamy Muck			O)		Vertic (F18) (outside	
	en Sulfide (A4)		Loamy Gley		F2)			Floodplain Soils (F1	
· — ·	d Layers (A5)		Depleted Ma					us Bright Loamy Soils	s (F20)
	Bodies (A6) (LRR P		Redox Dark				(MLRA		
· ·	ucky Mineral (A7) (LF		Depleted Da					nt Material (TF2)	- 40)
	resence (A8) (LRR U)	Redox Depr		8)			llow Dark Surface (Ti	- 12)
	uck (A9) (LRR P, T)	(4.4.)	Marl (F10) (I			\	Other (Ex	plain in Remarks)	
-	ed Below Dark Surfac	e (A11)	Depleted Oc				 > 3, ,, ,		
· ·	erk Surface (A12)	41 DA 450A)	Iron-Mangar				•	ors of hydrophytic veg	
	Prairie Redox (A16) (I					, U)		d hydrology must be	
-	Mucky Mineral (S1) (I	-RR O, S)	Delta Ochric			04 4500)		disturbed or problem	natic.
	Gleyed Matrix (S4)		Reduced Ve						
-	Redox (S5)		Piedmont FI					-op)	
	d Matrix (S6)		Anomalous	Bright Loai	ny Soils (-20) (MLR	A 149A, 153C, 1	o3D)	
	urface (S7) (LRR P, S						T		
_	Layer (if observed):								
Type:									./
D 41- /:									No
Depth (ir	nches):						Hydric Soil Pr	esent? Yes	_ NO
Remarks:	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	
	nches):		_				Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):		_				Hydric Soil Pr	esent? Yes	
	nches):		_				Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO
	nches):						Hydric Soil Pr	esent? Yes	NO



Photo 1 Upland data point whlf001_u facing south



Photo 2 Upland data point whlf001_u facing east

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Halifax County		Sampling Date: 12/8/2015
Applicant/Owner: Dominion			,	State: NC	Sampling Point: whlf002s_w
Investigator(s): SH, AS		Section	on, Township, Range: No		
Landform (hillslope, terrace, etc.): Dec Subregion (LRR or MLRA): P		Lat: 36.37704484	Long:	77.59367855	
Soil Map Unit Name: Chastain and B	ibb soils. 0 to 1 pe	Lat rcent slopes. frequent	tlv flooded	NIMI algorific	Datum
Are climatic / hydrologic conditions or					
Are Vegetation, Soil,					
Are Vegetation, Soil,	or Hydrology	naturally problema	tic? (If needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS –	Attach site ma	ap showing sam	pling point location	ns, transects	, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗸	No	In the Oriental Area		
Hydric Soil Present?		No	Is the Sampled Area within a Wetland?	Vac V	No
Wetland Hydrology Present?	Yes	No	within a Wetland:	165	NO
HYDROLOGY					
Wetland Hydrology Indicators:	in an accionale also also	- II 4b - 4 b A		•	ators (minimum of two required)
Primary Indicators (minimum of one	-			Surface Soil	
Surface Water (A1) ✓ High Water Table (A2)		atic Fauna (B13)) IIV	Sparsely Veg	getated Concave Surface (B8)
✓ Fight Water Table (A2) ✓ Saturation (A3)		l Deposits (B15) (LRF rogen Sulfide Odor (C		Moss Trim Li	
Water Marks (B1)		=	long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		sence of Reduced Iron		Crayfish Burn	
Drift Deposits (B3)		ent Iron Reduction in			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		Geomorphic	Position (D2)
Iron Deposits (B5)		er (Explain in Remark	s)	Shallow Aqui	
Inundation Visible on Aerial Ima	agery (B7)			FAC-Neutral	
Water-Stained Leaves (B9)				Sphagnum n	noss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes	No	Donth (inches):			
Water Table Present? Yes	No	Depth (inches): 9			
Saturation Present? Yes	<u>✓</u> No	Depth (inches): 4	Wetland H	lydrology Preser	nt? Yes ✔ No
(includes capillary fringe)				-	
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					
Tromano.					

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				、
5.				Percent of Dominant Species That Are OBL EACIN or EAC: 100 (A/B)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species0 x 1 =0
	0	= Total Cov		25 50
50% of total cover:0	20% of	total cover:	0	FACW species $\frac{25}{30}$ x 2 = $\frac{50}{90}$
Sapling/Shrub Stratum (Plot size:)				FAC species $x = 30$ $x = 30$
1. Ligustrum sinense	25	Yes	FAC	FACU species x 4 =
Persea borbonia	5	No	FACW	UPL species x 5 =
				Column Totals:60
3				
4				Prevalence Index = B/A =2.66
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cov	er	
50% of total cover:15		total cover:	^	Problematic Hydrophytic Vegetation ¹ (Explain)
F	20 /0 01	total cover.		
Herb Stratum (Plot size:) 1 Arundinaria gigantea	20	Voo	FACW	¹ Indicators of hydric soil and wetland hydrology must
·-		Yes		be present, unless disturbed or problematic.
2. Ligustrum japonicum	5	No	FAC	Definitions of Four Vegetation Strata:
3. Lonicera japonica	5	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
				October 10 bank - Was downlands - control in a cine - Land
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 in. DBH and greater than 3.20 it (1 in) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11.				height.
12.				noight.
12.	30	= Total Cov		
· 15			^	
50% of total cover: 15	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3.				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover: 2.5	20% of	total cover:	1	Present? Yes No
Remarks: (If observed, list morphological adaptations belo	w).			
, , , , , , , , , , , , , , , , , , , ,	,			

SOIL Sampling Point: whlf002s_w

	cription: (Describe	to the dept				or confirm	the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/1		7.5YR 4/4	3	C	M	CL	remano
6-20	10YR 3/1	90	7.5YR 3/4	10			SICL	
	10111 0/1		7.011(0)4					<u> </u>
1 _{Tymov} C=C	`anaantration D=Dan	lotion DM-	Doduced Metrix M	C-Mookod	Cand Cr		² l costion: D	L=Pore Lining, M=Matrix.
	Concentration, D=Dep Indicators: (Applic					allis.		or Problematic Hydric Soils ³ :
Histoso			Polyvalue Be		•	RRSTII		ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
	listic (A3)		Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)			t Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					us Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P		Redox Dark	•	,		(MLRA	
	ucky Mineral (A7) (Li resence (A8) (LRR U		Depleted Da Redox Depre					ent Material (TF2) allow Dark Surface (TF12)
	uck (A9) (LRR P, T)	'')	Marl (F10) (L		5)			xplain in Remarks)
· ——	ed Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)	00. (2)	, contains,
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P,	T) ³ Indicate	ors of hydrophytic vegetation and
	Prairie Redox (A16) (I					, U)		nd hydrology must be present,
-	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric			0.4 4500)	unless	s disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver				۵۸)	
-	d Matrix (S6)		Anomalous E					53D)
	urface (S7) (LRR P, S	S, T, U)	/	g =	, (0) (
	Layer (if observed)							
Type:								
Depth (in	nches):						Hydric Soil Pi	resent? Yes No
Remarks:							1	



Photo 1
Wetland data point WHLF002s_w facing northwest



Photo 2
Wetland data point WHLF002s_w facing southwest

Project/Site: Atlantic Coast Pipeline		City/C	County: Halifax Cour	nty	Sampling Date: 12/8/2015
Applicant/Owner: Dominion					Sampling Point: whlf002_u
		Section		e: No PLSS in this are	
Landform (hillslope, terrace, etc.): Hillslope Subregion (LRR or MLRA): P		Lat: 36.3771176	Lor	-77.59362747	Olope (70):
Soil Map Unit Name: Chastain and Bibb	soils 0 to 1 perc	ent slopes frequen	Lor itly flooded	ig. NIM/ alaasifi	Datum. None
Are climatic / hydrologic conditions on the					
Are Vegetation, Soil, or H				ormal Circumstances"	present? Yes No
Are Vegetation, Soil, or H	ydrology	_ naturally problema	atic? (If need	led, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Att	ach site ma	p showing san	npling point loc	ations, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes	No 🗸			
Hydric Soil Present?	Yes	No <u> </u>	Is the Sampled A		No
Wetland Hydrology Present?	Yes	No	within a Wetland	r res	NO
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is re	equired: check a	Il that apply)		Surface Soil	
Surface Water (A1)	-	ic Fauna (B13)			getated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRI	R U)	Drainage Pa	
Saturation (A3)		gen Sulfide Odor (0		Moss Trim L	
Water Marks (B1)	Oxidiz	zed Rhizospheres a	long Living Roots (C	C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2)		nce of Reduced Iro		Crayfish Bur	
Drift Deposits (B3)		nt Iron Reduction in	Tilled Soils (C6)		'isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)	(0)		Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery		(Explain in Remark	(S)	Shallow Aqu FAC-Neutral	
Water-Stained Leaves (B9)	, (Br)				moss (D8) (LRR T, U)
Field Observations:				<u> </u>	
Surface Water Present? Yes	No <u> </u>	epth (inches):			
Water Table Present? Yes	No 🖍 🏻	epth (inches):			
	No 🖍 🗀	epth (inches):	Wetla	and Hydrology Presei	nt? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge	monitoring wel	Laerial photos pre	vious inspections) i	f available	
Bessibe Resoluce Bata (stream gauge	, morntoning wer	i, deriai priotos, pre	, vious mopeodons), i	available.	
Remarks:					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	
1. Quercus falcata	40	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2 Liriodendron tulipifera	20	Yes	FACU	That Ald OBE, I AOW, OF I AO.
3. Quercus michauxii	10	No	FACW	Total Number of Dominant
	10	No No	FAC	Species Across All Strata: (B)
4. Ilex opaca				Percent of Dominant Species
5. Liquidambar styraciflua		No	FAC	That Are OBL, FACW, or FAC: (A/B)
6				Dravial and a landary want to be act.
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	85	= Total Cov	er	OBL species x 1 =0
50% of total cover: 42.5			17	FACW species10 x 2 =20
30 % of total cover.	20% 01	total cover:		FAC species 50
Sapling/Shrub Stratum (Plot size:)				70 200
1. Ligustrum sinense	20	Yes	FAC	1 ACO species
2. Carpinus caroliniana	10	Yes	FAC	UPL species $\frac{0}{130}$ x 5 = $\frac{0}{450}$
3.				Column Totals:(A)(B)
				2.46
4				Prevalence Index = B/A =3.46
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cov	er	
50% of total cover:15		total cover:	^	Problematic Hydrophytic Vegetation ¹ (Explain)
F	20% 01	total cover.		
Herb Stratum (Plot size:5			=	¹ Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	10	Yes	FACU	be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
·				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				of size, and woody plants less than 5.20 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	10	= Total Cov	er	
50% of total cover: 5		total cover:	•	
30 /0 of total cover.	20 /0 01	total cover.		
Woody Vine Stratum (Plot size:)	_		540	
1. Toxicodendron radicans	5	Yes	FAC	
2				
3				
4				
5				Hydrophytic
	5	= Total Cov	er	Vegetation
50% of total cover: 2.5	20% of	total cover:	1	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w)			
Tremarks. (II observed, list morphological adaptations below	·v).			

SOIL Sampling Point: whlf002_u

Profile Desc	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence	of indicate	ors.)	
Depth	Matrix			x Features		- 2				
(inches) 0-7	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	%	Type'	Loc ²	<u>Texture</u> SL		Remarks	
		·								_
7-16	2.5Y 5/4	90 2.	5Y 5/2	10	D	M	LS			_
16-	10YR 6/6	100					SCL			
		· <u></u>		<u> </u>						
										_
		. — — —								
		·								_
	-									
¹ Type: C=C	oncentration, D=Dep	letion, RM=Re	educed Matrix, M	S=Masked	Sand Gr	ains.			ining, M=Matr	
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless other	rwise note	ed.)		Indicators	for Proble	matic Hydric	Soils ³ :
Histosol			Polyvalue Be					. , .	•	
	pipedon (A2)		Thin Dark Su					uck (A10)		
	istic (A3)		Loamy Muck			(O)				MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye Depleted Ma		F2)				ain Soils (F19 Loamy Soils) (LRR P, S, T)
	d Layers (A5) : Bodies (A6) (LRR P	T U)	Depleted Ma	. ,	·6)			ious Brigini : A 153B)	Luality Suis	(F20)
_	ucky Mineral (A7) (LF		Depleted Dai					rent Mater	ial (TF2)	
	resence (A8) (LRR U		Redox Depre						k Surface (TF	12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Explain in l	Remarks)	
-	d Below Dark Surfac	e (A11)	Depleted Oc							
	ark Surface (A12)		Iron-Mangan		. , .		•		drophytic vege	
	Prairie Redox (A16) (I					, U)		-	ogy must be p	
-	Mucky Mineral (S1) (I Gleyed Matrix (S4)	-KK (), (S)	Delta Ochric Reduced Ver			0A 150R)	unie	ess disturbe	ed or problema	atic.
-	Redox (S5)		Piedmont Flo				9A)			
-	d Matrix (S6)						A 149A, 153C,	153D)		
	ırface (S7) (LRR P, S	s, T, U)		Ū	,	, ,		,		
Restrictive	Layer (if observed):									
Type:			_							
Depth (in	ches):		_				Hydric Soil	Present?	Yes	No
Remarks:										



Photo 1 Upland data point WHLF002_u facing south



Photo 2 Upland data point WHLF002_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Halifax County		Sampling Date: <u>12/8/2015</u>
Applicant/Owner: Dominion		State: NC	Sampling Point: whlf003f_w
• • • • • • • • • • • • • • • • • • • •	Section, Township, Range: N		
Landform (hillslope, terrace, etc.): Floodplain			
Subregion (LRR or MLRA): P L Soil Map Unit Name: Chastain and Bibb soils, 0 to 1 percent	at: Long:		None
Are climatic / hydrologic conditions on the site typical for this			
Are Vegetation, Soil, or Hydrology s	ignificantly disturbed? Are "Norma	al Circumstances" p	resent? Yes No
Are Vegetation, Soil, or Hydrology r	aturally problematic? (If needed,	explain any answer	s in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes <u>✓</u> N	0		
Hydric Soil Present? Yes _ ✓ N	o lis the bampled Area		
Wetland Hydrology Present? Yes N		Yes	No
Remarks:			
Area is situated on a floodplain. Underground pipes (likely	drain tiles from agricultural field above) a	also drain into this s	ystem and contribute to the
hydrology.			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all	hat apply)	Surface Soil (Cracks (B6)
Surface Water (A1) Aquatic	Fauna (B13)	Sparsely Veg	etated Concave Surface (B8)
✓ High Water Table (A2) — Marl De	posits (B15) (LRR U)	✓ Drainage Pat	terns (B10)
Saturation (A3) Hydroge	en Sulfide Odor (C1)	Moss Trim Lir	nes (B16)
	d Rhizospheres along Living Roots (C3)	Dry-Season V	Vater Table (C2)
	e of Reduced Iron (C4)	✓ Crayfish Burre	
	Iron Reduction in Tilled Soils (C6)		sible on Aerial Imagery (C9)
	ck Surface (C7)	Geomorphic I	
	Explain in Remarks)	Shallow Aquit	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)			oss (D8) (LRR T, U)
Field Observations:		Opinagrium in	033 (D0) (ERR 1; 0)
Surface Water Present? Yes No De	oth (inches):		
Water Table Present? Yes V No De			
Saturation Present? Yes V No De	oth (inches): 0 Wetland	Hydrology Present	t? Yes ✔ No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if ava	ailable:	
Remarks:			

20		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. Liriodendron tulipifera	30	Yes	FACU	That Are OBL, FACW, or FAC: 7 (A)
2. Fraxinus pennsylvanica	30	Yes	FACW	Total Niveshan of Descinant
3. Acer rubrum	20	Yes	FAC	Total Number of Dominant Species Across All Strata: 9 (B)
Quercus michauxii	10	No	FACW	(2)
"				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				0 0
	90	= Total Cov	/er	OBL species
50% of total cover:	20% of	total cover	. 18 :	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:15)			<u> </u>	FAC species x 3 =
1 Ligustrum sinense	5	Yes	FAC	FACU species 45 x 4 = 180
2. Ilex opaca		Yes	FAC	UPL species0 x 5 =0
			- I AC	Column Totals:145
3				Column Totals (A) (B)
4				Prevalence Index = B/A = 2.93
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	10	= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5	20% of	total cover	. 2	<u> </u>
Herb Stratum (Plot size:5				1
1. Lonicera japonica	15	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Ligustrum sinense	10	Yes	FAC	Definitions of Four Vegetation Strata:
3. Arundinaria gigantea	10	Yes	FACW	3
4. Athyrium asplenioides	5	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
· · · · · · · · · · · · · · · · · · ·				more in diameter at breast height (DBH), regardless of height.
5				neignt.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Hark All backs are confused to also to a second and
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				of size, and woody planto less than 5.25 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	40	= Total Cov	/er	
50% of total cover: 20		total cover	•	
	2070 01	10101 00101	·	
Woody Vine Stratum (Plot size:) 1. Vitis riparia	5	Yes	FACW	
			- TACW	
2				
3				
4				
5				Hydrophytic
0.5		= Total Cov	4	Vegetation Present? Yes No
50% of total cover: 2.5	20% of	total cover	:	11636Ht: 163 NO
Remarks: (If observed, list morphological adaptations below	w).			1
	,			

SOIL Sampling Point: whlf003f_w

	cription: (Describe t	o are aepari				C. COMMIN	45351165	J. maicalo		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc²	Texture		Remarks	
0-20	10YR 2/1		5YR 2.5/3	3	C	M	SL	Mucky	Remarks	
			01112.070							
-								-		
					-			-		
-										
¹ Type: C=C	oncentration, D=Depl	etion. RM=Re	educed Matrix. MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore L	ining, M=Matrix.	
	Indicators: (Applica					-			matic Hydric Sc	oils³:
Histoso			Polyvalue Be			RRS T II		Muck (A9) (L	•	
	pipedon (A2)		Tolyvalde Be Thin Dark Su					Muck (A3) (L Muck (A10) (
	istic (A3)		Loamy Mucky						18) (outside ML	PA 150A B)
	en Sulfide (A4)		Loamy Gleye			. 0)			ain Soils (F19) (L	
	d Layers (A5)		Depleted Mat		2)				Loamy Soils (F2	
	Bodies (A6) (LRR P ,	T III	Depleted Mai		6)			aious Brigili RA 153B)	Loanny Jons (F2	-0)
	ucky Mineral (A7) (LR		Redox Dark 3					arent Materi	ial (TF2)	
	resence (A8) (LRR U)		Depleted Dai						(Surface (TF12)	
	uck (A9) (LRR P, T)	,)			(Explain in F		
	d Below Dark Surface	Δ (Δ11)	Man (1 10) (L Depleted Och		(MIRA 1	51)	Other	(LAPIAIII III I	(ciliaiks)	
	ark Surface (A12)	(7(1)	Iron-Mangane				T) ³ India	rators of hyd	drophytic vegetat	ion and
	Prairie Redox (A16) (N	II PA 150A)	Umbric Surfa						ogy must be pres	
	Mucky Mineral (S1) (L		Delta Ochric			, 0,		-	ed or problemation	
	Gleyed Matrix (S4)		Reduced Ver			ΩΔ 150R)	un	C33 distuibe	d of problematic	•
	Redox (S5)		Reduced Ver				3.4.1			
-	d Matrix (S6)		Anomalous B					153D)		
	urface (S7) (LRR P, S	T II)	Anomalous b	ngni Loan	ily oolis (1 20) (IVILIXA	143A, 1330	, 1330)		
	Layer (if observed):	, 1, 0)					<u> </u>			
	Layer (ii observeu).									
Type:			_						./	
Depth (ir	iches):		_				Hydric Soil	Present?	Yes	No
Remarks:							•			



Photo 1
Wetland data point WHLF003f_w facing east



Photo 2
Wetland data point WHLF003f_w facing northwest

Project/Site: Atlantic Coast Pipeline		City/C	county: Halifax County		Sampling Date: 12/8/201	5	
Applicant/Owner: Dominion			,	State: NC	Sampling Point: whlf003_	_u	
Investigator(s): SH, AS		Section	on, Township, Range: N				
Landform (hillslope, terrace, etc.): Hillslo						;	
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Winton fine sandy	loam, 25 to 45 perce	nt slopes	Long	NWI classific	cation: None		
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or)	
Are Vegetation, Soil, or						·	
SUMMARY OF FINDINGS – A						s etc	
			.pmig pomi rodam	Jiio, trailooote	,, important routaroc	<i>,</i> στο:	
Hydrophytic Vegetation Present?	Yes No		Is the Sampled Area				
Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> No Yes No		within a Wetland?	Yes	No	ļ	
Remarks:	Tes NO						
HYDROLOGY							
				Socondary Indica	ators (minimum of two requ	uirod)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is	required; check all th	eat apply)		Surface Soil		<u>lirea)</u>	
	•					/D0\	
Surface Water (A1) High Water Table (A2)	Aquatic F	osits (B15) (LRF	D 11/	Sparsely ve	getated Concave Surface ((DO)	
Saturation (A3)		n Sulfide Odor (0		Moss Trim L			
Water Marks (B1)			long Living Roots (C3)		Water Table (C2)		
Sediment Deposits (B2)		of Reduced Iro		Crayfish Bur			
Drift Deposits (B3)			Tilled Soils (C6)				
Algal Mat or Crust (B4)		k Surface (C7)	` '	Geomorphic Position (D2)			
Iron Deposits (B5)		κplain in Remark	(s)	Shallow Aqu			
Inundation Visible on Aerial Image	ery (B7)			FAC-Neutra	l Test (D5)		
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)		
Field Observations:							
	No 🖍 Dept						
	No 🖍 Dept						
Saturation Present? Yes (includes capillary fringe)	No 🖍 Dept	th (inches):	Wetland I	Hydrology Presei	nt? Yes No	<u></u>	
Describe Recorded Data (stream gaug	je, monitoring well, a	erial photos, pre	vious inspections), if ava	ailable:			
Remarks:							

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Liriodendron tulipifera	40	Yes	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Pinus taeda	25	Yes	FAC	Total Number of Deminent
3. Liquidambar styraciflua	10	No	FAC	Total Number of Dominant Species Across All Strata: 6 (B)
4.				(2)
5				Percent of Dominant Species That Are OBL FACW or FAC: 33.33333333 (A/B)
•				That Are OBL, FACW, or FAC: 33.3333333 (A/B)
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	75			OBL species0 x 1 =0
27.5		= Total Cov		FACW species 0 x 2 = 0
50% of total cover: 37.5	20% of	total cover:	15	60 180
Sapling/Shrub Stratum (Plot size:)				FAC species
1. Liquidambar styraciflua	25	Yes	FAC	FACU species x 4 =
2. Liriodendron tulipifera	20	Yes	FACU	UPL species $\begin{array}{c} 0 \\ 127 \\ \end{array}$ $\begin{array}{c} x \ 5 = \\ 448 \\ \end{array}$
3.				Column Totals:(A)(B)
4.				Prevalence Index = R/A = 3.52
r				Trevalence mack - B/A -
··-				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 22.5	20% of	total cover:	9	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	5	Yes	FACU	be present, unless disturbed or problematic.
2 Polystichum acrostichoides	2	Yes	FACU	Definitions of Four Vegetation Strata:
3.				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				g.m.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11.				height.
12.				
	7	= Total Cov		
50% of total cover: 3.5		total cover:		
30 % Of total cover.	20% 01	total cover.		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
	0 :	= Total Cov	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes No
Remarks: (If observed, list morphological adaptations below			-	
Tremarks. (II observed, list morphological adaptations belo	vv).			

SOIL Sampling Point: whlf003_u

Depth	cription: (Describe Matrix	to the dep		x Features		or commi	tile absence of	indicators.)	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-8	10YR 4/2	95	5YR 4/6	5	С	М	LS		
8-20	2.5Y 4/2	97	7.5YR 4/6	3	С	PL/M	LFS		
1			_						
	Concentration, D=Dep					ains.		=Pore Lining, M=Matri	
	Indicators: (Applic	able to all			•			Problematic Hydric	Solis :
Histoso	i (A1) pipedon (A2)		Polyvalue Be Thin Dark Su					k (A9) (LRR O) k (A10) (LRR S)	
	listic (A3)		Loamy Muck					Vertic (F18) (outside l	MI RA 150A R)
	en Sulfide (A4)		Loamy Gleye			. 0,		Floodplain Soils (F19)	
	d Layers (A5)		✓ Depleted Ma		- – /			is Bright Loamy Soils (
	Bodies (A6) (LRR P	P, T, U)	Redox Dark	, ,	6)		(MLRA		,
	ucky Mineral (A7) (L l		Depleted Da	rk Surface	(F7)			nt Material (TF2)	
	resence (A8) (LRR L	J)	Redox Depre		8)			low Dark Surface (TF1	2)
	uck (A9) (LRR P, T)	(4.4.1)	Marl (F10) (L				Other (Ex	plain in Remarks)	
	ed Below Dark Surfac	e (A11)	Depleted Oc				T) ³ Indicate	ro of hydrophytic year	tation and
	ark Surface (A12) Prairie Redox (A16) (I	MI RA 1504	Iron-Mangan () Umbric Surfa					rs of hydrophytic vege d hydrology must be p	
	Mucky Mineral (S1) (Delta Ochric			, 0,		disturbed or problema	
-	Gleyed Matrix (S4)	0, 0,	Reduced Ve			0A, 150B)	amooo	alotal bod of problema	
	Redox (S5)		Piedmont Flo				9A)		
Strippe	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (F20) (MLR	A 149A, 153C, 15	33D)	
	urface (S7) (LRR P, S								
Restrictive	Layer (if observed)	:							
Type:								,	
Depth (ir	nches):						Hydric Soil Pre	esent? Yes	No
Remarks:									
1									



Photo 1 Upland data point whlf003_u facing west



Photo 2 Upland data point whlf003_u facing south

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Halifax County		Sampling Date: 12/8/2015			
Applicant/Owner: Dominion				State: NC	Sampling Point: whlf004s_w			
		Section	on, Township, Range: N					
Landform (hillslope, terrace, etc.): Swa								
					Datum: WGS 1	1984		
Soil Map Unit Name: Chastain and Bib	bb soils. 0 to 1 per	Lat cent slopes. frequen	tlv flooded	NIM/L alagaifia	Datum			
Are climatic / hydrologic conditions on								
						,		
Are Vegetation, Soil, or								
Are Vegetation, Soil, or	· Hydrology	naturally problema	atic? (If needed,	explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS – A	Attach site ma	ap showing sam	pling point location	ons, transects	s, important features, e	tc.		
Hydrophytic Vegetation Present?	Yes 🗸	No	le the Compled Area					
Hydric Soil Present?	Yes 🔽		Is the Sampled Area within a Wetland?	Vos V	No			
Wetland Hydrology Present?	Yes	No	within a wetiant:	165	NO			
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is	-		_	Surface Soil	, ,			
Surface Water (A1)		atic Fauna (B13)	5 I I S		getated Concave Surface (B8))		
High Water Table (A2) ✓ Saturation (A3)		Deposits (B15) (LRF rogen Sulfide Odor (C		✓ Drainage Pa _ Moss Trim L				
Water Marks (B1)		-	long Living Roots (C3)		Water Table (C2)			
Sediment Deposits (B2)		ence of Reduced Iron		✓ Crayfish Bur				
Drift Deposits (B3)		ent Iron Reduction in			'isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		Geomorphic	Position (D2)			
Iron Deposits (B5)	Othe	er (Explain in Remark	s)	Shallow Aqu				
Inundation Visible on Aerial Imag	jery (B7)			FAC-Neutral	, ,			
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)			
Field Observations: Surface Water Present? Yes	No. V	Donth (inches):						
	No V							
	✓ No		Wetland	Hydrology Presei	nt? Yes ✓ No			
(includes capillary fringe)					II: 165 NO	_		
Describe Recorded Data (stream gau	ige, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:				
Remarks:								
remarks.								

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species
1. Magnolia grandiflora	10	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				
5.				Percent of Dominant Species That Are ORL FACW or FAC: 80 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	10			OBL species 0 x 1 = 0
E		= Total Cov		FACW species x 2 = 140
50% of total cover:5	20% of	total cover:	2	45 125
Sapling/Shrub Stratum (Plot size: 15)				FAC species
1. Magnolia virginiana	50	Yes	FACW	FACU species x 4 =
2. Ligustrum sinense	30	Yes	FAC	UPL species x 5 =
3. Rosa multiflora	5	No	FACU	Column Totals:130 (A)335 (B)
4. Ilex opaca	3	No	FAC	0.57
5. Pinus taeda	2	No	FAC	Prevalence Index = B/A =2.57
			- 170	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	90	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 45	20% of	total cover:	18	1 Toblematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size: 5)	_			
1 Arundinaria gigantea	20	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Lonicera japonica	10	Yes	FACU	
				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	30	= Total Cov	er	
50% of total cover:15		total cover:	_	
Woody Vine Stratum (Plot size: 30)				
/ / / / / / / / / / / / / / / / / / /				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0				Present? Yes No
Remarks: (If observed, list morphological adaptations below				
Remarks. (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: whlf004s_w

Profile Desc	cription: (Describe t	o the depth	needed to docu	ment the	indicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix Color (moist)	<u></u> %		x Feature	4	Loc ²	Toytura		Domorko	
(inches) 0-10	Color (moist) 10YR 3/1	100	Color (moist)	%	Type'	LOC	Texture SL	Mucky	Remarks	
								. <u> </u>		_
10-20	10YR 2/1	100					LCOS	Mucky		
								· -		
-	-									•
	oncentration, D=Depl					ains.			ining, M=Matri	
_	Indicators: (Applica	able to all Li							matic Hydric	Soils':
Histosol			Polyvalue Be					Muck (A9) (L		
	oipedon (A2)		Thin Dark Su					Muck (A10) (
	stic (A3)		Loamy Muck	-		(O)				MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(F2)					(LRR P, S, T)
	d Layers (A5)		Depleted Ma		-0)				Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark					.RA 153B)	:-! (TEO)	
	ucky Mineral (A7) (LR		Depleted Da					Parent Materi	` ,	2)
	resence (A8) (LRR U))	Redox Depre		8)			Snallow Dark (Explain in F	Surface (TF1	2)
	ıck (A9) (LRR P, T) d Below Dark Surface	Δ (Δ11)	Nan (F10) (L		(MIRA 1	51)	Other	(Explain in r	Remarks)	
-	ark Surface (A12)	, (7,11)	Iron-Mangan	. ,	•	-	T) ³ Indi	cators of hyd	drophytic vege	tation and
	rairie Redox (A16) (M	ILRA 150A)							ogy must be p	
	lucky Mineral (S1) (L		Delta Ochric			, -,		-	d or problema	
	Gleyed Matrix (S4)	, -,	Reduced Ve			0A, 150B)				
	Redox (S5)		Piedmont Flo				9A)			
	Matrix (S6)		Anomalous E					C, 153D)		
Dark Su	rface (S7) (LRR P, S	, T, U)		_						
Restrictive	Layer (if observed):									
Type:										
Depth (in	ches):						Hydric Soi	I Present?	Yes	No
Remarks:							,			
rtemants.										



Photo 1
Wetland data point WHLF004s_w facing southwest



Photo 2
Wetland data point WHLF004s_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	County: Halifax County		Sampling Date: 12/8/2015		
Applicant/Owner: Dominion				State: NC	Sampling Point: whlf004_u		
Investigator(s): SH, AS		Section	on, Township, Range: N				
Landform (hillslope, terrace, etc.): Terra							
Subregion (LRR or MLRA): P		1 at: 36.37463496) Long: -	77.59944422			
Soil Map Unit Name: Chastain and Bibl	b soils. 0 to 1 per	Lat cent slopes. frequer	tlv flooded	NIM/L closeifia	Datum		
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or							
Are Vegetation, Soil, or	Hydrology	_ naturally problem	atic? (If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – A	ttach site ma	p showing san	npling point location	ons, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗸	No	la tha Canada I Ana				
Hydric Soil Present?	Yes	No 🗸	Is the Sampled Area within a Wetland?	Vac	No		
Wetland Hydrology Present?	Yes	No	within a wettand?	res	NO		
HADBOI OCA							
HYDROLOGY Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is	required check	all that apply)		Surface Soil			
Surface Water (A1)	-	itic Fauna (B13)			getated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LR	R U)	Drainage Pa			
Saturation (A3)		ogen Sulfide Odor (Moss Trim L			
Water Marks (B1)	Oxidi	zed Rhizospheres a	along Living Roots (C3)				
Sediment Deposits (B2)		ence of Reduced Iro		Crayfish Burrows (C8)			
Drift Deposits (B3)		ent Iron Reduction in	Tilled Soils (C6)				
Algal Mat or Crust (B4)		Muck Surface (C7)	(40)		Position (D2)		
Iron Deposits (B5) Inundation Visible on Aerial Image		r (Explain in Remarl	KS)	Shallow Aqu FAC-Neutral			
Water-Stained Leaves (B9)	51 y (D1)				moss (D8) (LRR T, U)		
Field Observations:							
Surface Water Present? Yes	No	Depth (inches):					
Water Table Present? Yes _	No	Depth (inches):					
	No I	Depth (inches):	Wetland H	Hydrology Presei	nt? Yes No		
(includes capillary fringe) Describe Recorded Data (stream gauge	ge, monitoring we	ell, aerial photos, pre	evious inspections), if ava	ailable:			
,			. ,				
Remarks:							

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species _
1. Fagus grandifolia	20	Yes	FACU	That Are OBL, FACW, or FAC:5 (A)
2. Ilex opaca	10	Yes	FAC	Total Number of Dominant
3. Acer rubrum	10	Yes	FAC	Species Across All Strata: 6 (B)
4				Dancart of Dancin and On a sing
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3333333 (A/B)
6				(VIII)
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	40	= Total Cov	er	OBL species x 1 =0
50% of total cover:		total cover:	Ω	FACW species60
Sapling/Shrub Stratum (Plot size: 15)	20 /0 01	total cover.		FAC species55
1 Persea borbonia	40	Yes	FACW	FACU species30 x 4 =120
lley energy	20	Yes	FAC	UPL species 10 x 5 = 50
2. Ilex opaca 3. Rubus allegheniensis	10	No No	UPL	Column Totals: 155 (A) 455 (B)
,	5	No	FAC	(-)
4. Liquidambar styraciflua				Prevalence Index = B/A = 2.93
5. Fagus grandifolia	5	No No	FACU	Hydrophytic Vegetation Indicators:
6. Quercus falcata	5	No	FACU	1 - Rapid Test for Hydrophytic Vegetation
7. Pinus taeda	5	No	FAC	2 - Dominance Test is >50%
8. Aralia spinosa	5	No	FAC	3 - Prevalence Index is ≤3.0 ¹
	95	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 47.5	20% of	total cover:	19	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	20	Yes	FACW	be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 m. DBH and greater than 3.26 it (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	20	= Total Cov	er	
50% of total cover:10	20% of	total cover:	4	
Woody Vine Stratum (Plot size: 30)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:		riesent: res No
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: whlf004_u

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)	
Depth	Matrix			x Feature		3			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Rema	ırks
0-10	10YR 2/2	100					SL		
10-13	10YR 5/2	100					LCOS		
13-20	10YR 5/4	100					LCOS		
									
		. <u> </u>							
¹ Type: C=C	oncentration, D=Dep	letion. RM=Re	educed Matrix. M	S=Masked	Sand Gr	ains.	² Location: PL	=Pore Lining, M=	Matrix.
	Indicators: (Applic					<u> </u>		r Problematic Hy	
Histosol	(A1)		Polyvalue Be	elow Surfa	ce (S8) (L	RR S, T, U) 1 cm Muc	k (A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark S					k (A10) (LRR S)	
	istic (A3)		Loamy Muck			O)			side MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		F2)				(F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					us Bright Loamy S	oils (F20)
_	Bodies (A6) (LRR P		Redox Dark				(MLRA		
·	ucky Mineral (A7) (LI resence (A8) (LRR U		Depleted Da Redox Depression					nt Material (TF2) llow Dark Surface	(TE12)
·	uck (A9) (LRR P, T)	''	Marl (F10) (I		0)			plain in Remarks)	•
I	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)	0.1101 (22	piani in reomane)	
-	ark Surface (A12)	, ,	Iron-Mangar	nese Mass	es (F12) (LRR O, P, 1	r) ³ Indicate	ors of hydrophytic	vegetation and
Coast P	rairie Redox (A16) (I	MLRA 150A)	Umbric Surfa	ace (F13) ((LRR P, T	, U)		d hydrology must	
-	Mucky Mineral (S1) (LRR O, S)	Delta Ochric				unless	disturbed or prob	lematic.
	Gleyed Matrix (S4)		Reduced Ve						
-	Redox (S5)		Piedmont Fl					E2D)	
	l Matrix (S6) Irface (S7) (LRR P, \$	2 T II\	Anomaious i	Bright Loar	my Solis (-20) (WLKA	A 149A, 153C, 15	30)	
	Layer (if observed)								
Type:	_uyo: (oboo: rou)	-							
	ches):						Hydric Soil Pr	esent? Yes	No 🗸
Remarks:	CHES).		<u> </u>				Tiyane 3011 Fit		
Nemains.									



Photo 1 Upland data point WHLF004_u facing south



Photo 2 Upland data point WHLF004_u facing north

Project/Site: Atlantic Coast Pipeline		City/C	county: Halifax County		_ Sampling Date: 12/	9/2015
Applicant/Owner: Dominion				State: NC	Sampling Point: wh	if005s_w
••		Section	on, Township, Range: N			
Landform (hillslope, terrace, etc.): Floodpl						%)· 3
Subregion (LRR or MLRA): P						
Soil Map Unit Name: Chastain and Bibb so						1
Are climatic / hydrologic conditions on the						
Are Vegetation, Soil, or Hy				al Circumstances"	present? Yes	No
Are Vegetation, Soil, or Hy	drology	naturally problema	atic? (If needed,	explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Atta	ch site ma	ap showing sam	pling point locati	ons, transects	s, important feat	ures, etc.
Hydrophytic Vegetation Present?	Yes 🗸	No				
Hydric Soil Present?		No	Is the Sampled Area		,	
Wetland Hydrology Present?		No	within a Wetland?	Yes	No	
Remarks:						
Fringe wetland to shlf003 and shlh003.						
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two	o required)
Primary Indicators (minimum of one is re-	quired; check	all that apply)		Surface Soil	l Cracks (B6)	
Surface Water (A1)	Aqua	atic Fauna (B13)		Sparsely Ve	egetated Concave Sur	face (B8)
<u>✓</u> High Water Table (A2)		Deposits (B15) (LRF	₹ U)	✓ Drainage Pa		
<u>✓</u> Saturation (A3)	Hydr	ogen Sulfide Odor (0	C1)	Moss Trim L	ines (B16)	
Water Marks (B1)	Oxid	ized Rhizospheres a	long Living Roots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Pres	ence of Reduced Iro	n (C4)	Crayfish Bui	rrows (C8)	
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Image	ery (C9)
Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		Geomorphic	Position (D2)	
Iron Deposits (B5)	Othe	er (Explain in Remark	(S)	Shallow Aqu	uitard (D3)	
Inundation Visible on Aerial Imagery	(B7)			FAC-Neutra	l Test (D5)	
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U))
Field Observations:						
		Depth (inches):				
Water Table Present? Yes	No	Depth (inches): 10				
	No	Depth (inches): 0	Wetland	Hydrology Prese	nt? Yes 🔽 I	No
(includes capillary fringe) Describe Recorded Data (stream gauge,	monitoring we	ell, aerial photos, pre	vious inspections), if av	railable:		
garge,		,, -	,,,,			
Remarks:						

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
		Species?		Number of Dominant Species _
1. Nyssa sylvatica	15	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4.				(5)
				Percent of Dominant Species That Are OBL FACIN or FAC: 100 (A/B)
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				00
	15	= Total Cov	er	Obl species X 1 = X 1 =
50% of total cover: 7.5	20% of	total cover:	3	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15)	<u> </u>			FAC species x 3 =
1 Carpinus caroliniana	15	Yes	FAC	FACU species0 x 4 =0
2 Ligustrum sinense	10	Yes	FAC	UPL species0 x 5 =0
£.;				Column Totals: 115 (A) 240 (B)
3. Persea borbonia	5	No	FACW	Column rotals (A) (B)
4				Prevalence Index = B/A =2.08
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:15	20% of	total cover:	6	
Herb Stratum (Plot size: 5	_			1
1 Arundinaria gigantea	40	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
··-				be present, unless disturbed or problematic.
2. Leersia oryzoides	30	Yes	OBL	Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	70	= Total Cov		
50% of total cover:35	20% of	total cover:	14	
Woody Vine Stratum (Plot size: 30)				
1				
2				
3				
4				
5				Hydrophytic
-		= Total Cov	er	Vegetation
50% of total cover: 0				Present? Yes No
		total cover.		
Remarks: (If observed, list morphological adaptations below	v).			

SOIL Sampling Point: whlf005s_w

	cription: (Describe	to the dep				or commi	the absence of ii	ndicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Features %	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 6/2	97	10YR 5/8	3	C	M	COS	. toe
5-20	10YR 4/1	100					SCL	
1 _{Tyme} , C=C		olotion DM-	-Doduced Metrix M		Cand Cr		² l continu	=Pore Lining, M=Matrix.
	oncentration, D=Deplicators: (Applicators)					allis.		Problematic Hydric Soils ³ :
Histosol		Jubio to un	Polyvalue B		•	RRS T III		•
	pipedon (A2)		Thin Dark S					(A10) (LRR S)
	istic (A3)		Loamy Mucl					/ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley					Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma				Anomalous	s Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark				(MLRA 1	
· ——	ucky Mineral (A7) (L							t Material (TF2)
	resence (A8) (LRR L	J)	Redox Depr		3)			ow Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surfac	o (A11)	Marl (F10) (I		(MIDA 1	5 4\	Other (Exp	lain in Remarks)
	ark Surface (A12)	C (ATT)	Iron-Mangar				T) ³ Indicator	s of hydrophytic vegetation and
	rairie Redox (A16) (MLRA 150 <i>A</i>	_					hydrology must be present,
	/ucky Mineral (S1)		Delta Ochric			, ,		disturbed or problematic.
Sandy C	Gleyed Matrix (S4)		Reduced Ve	ertic (F18) (MLRA 15	0A, 150B)		
-	Redox (S5)		Piedmont FI					
	Matrix (S6)		Anomalous	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C, 153	BD)
	rface (S7) (LRR P,							
	Layer (if observed)	:						
Type:								
	ches):						Hydric Soil Pre	sent? Yes No
Remarks:								
ii								



Photo 1 Wetland data point whlf005s_w facing south



Photo 2
Wetland data point whlf005s_w facing east

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Halifax County		Sampling Date: 12/9/2015			
Applicant/Owner: Dominion								
Investigator(s): SH, AS		Section	on, Township, Range: N					
Landform (hillslope, terrace, etc.): Hills								
Subregion (LRR or MLRA): P	77.59987975							
Subregion (LRR or MLRA): P Soil Map Unit Name: Chastain and Bib	b soils, 0 to 1 perce	ent slopes, frequen	tly flooded	NWI classific	cation: None			
Are climatic / hydrologic conditions on t								
Are Vegetation, Soil, or	- ·							
Are Vegetation, Soil, or				explain any answe				
SUMMARY OF FINDINGS – A								
			.pg po		,, p			
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area					
Hydric Soil Present? Wetland Hydrology Present?	Yes Yes		within a Wetland?	Yes	No <u> </u>			
Remarks:	165	NO						
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is	required: check all	that annly)		Surface Soil				
Surface Water (A1)		c Fauna (B13)		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		eposits (B15) (LRF	5 11/	Sparsely ve				
Saturation (A3)		gen Sulfide Odor (0		Moss Trim Lines (B16)				
Water Marks (B1)			long Living Roots (C3)					
Sediment Deposits (B2)		ice of Reduced Iro		Crayfish Burrows (C8)				
Drift Deposits (B3)		t Iron Reduction in						
Algal Mat or Crust (B4)		uck Surface (C7)		Geomorphic Position (D2)				
Iron Deposits (B5)	Other	Explain in Remark	s)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imag	ery (B7)			FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)			
Field Observations:								
	No 🗸 Do							
	No 🔽 Do				_			
Saturation Present? Yes _ (includes capillary fringe)	No 🖍 Do	epth (inches):	Wetland I	Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gau	ge, monitoring well	aerial photos, pre	vious inspections), if ava	ailable:				
Remarks:								

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species
1. Acer rubrum	30	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Ilex opaca	20	Yes	FAC	Total Number of Dominant
3.				Species Across All Strata: 5 (B)
4				
5.				Percent of Dominant Species That Are ORL FACW or FAC: 80 (A/R)
				That Are OBL, FACW, or FAC:80 (A/B)
				Prevalence Index worksheet:
7	-			Total % Cover of: Multiply by:
8	50			OBL species0 x 1 =0
500/ - ft-t-t-1		= Total Cov	10	FACW species0 x 2 =0
50% of total cover:25	20% of	total cover:		105 315
Sapling/Shrub Stratum (Plot size:)				35 100
1. Ligustrum sinense	40	Yes	FAC	FACU species
2. Carpinus caroliniana	15	Yes	FAC	UPL species $\frac{7}{137}$ x 5 = $\frac{35}{450}$
3. Rubus allegheniensis	5	No	UPL	Column Totals: (A) (B)
4 Rosa multiflora	5	No	FACU	Prevalence Index = R/Δ = 3.28
				Trevalence mack - B/A -
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
00.5		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 32.5	20% of	total cover:	13	
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1. Lonicera japonica	20	Yes	FACU	be present, unless disturbed or problematic.
2. Rubus allegheniensis	2	No	UPL	Definitions of Four Vegetation Strata:
3.				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	22	= Total Cov	er	
50% of total cover: 11	20% of	total cover:	4.4	
Woody Vine Stratum (Plot size:30)				
/ lot old of				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes No No
Remarks: (If observed, list morphological adaptations below	w).			
	,			

SOIL Sampling Point: whlf005_u

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	indicator	or confirm	the absence o	f indicato	ors.)	
Depth	Matrix			ox Feature		. 2				
(inches) 0-3	Color (moist) 7.5YR 3/1	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> FSL		Remarks	
		·								
3-16	10YR 3/1	100					LFS			
		· -								-
		· — — —								
-	-	· — — —					<u> </u>			
¹Type: C=C	concentration, D=Dep	letion. RM=Re	educed Matrix. M	IS=Masked	d Sand Gr	ains.	² Location: F	PL=Pore L	ining, M=Ma	trix.
	Indicators: (Applic					-	Indicators for			
Histoso	I (A1)		Polyvalue B	elow Surfa	ce (S8) (L	.RR S. T. U) 1 cm Mu	ıck (A9) (L	RR O)	
	pipedon (A2)		Thin Dark S					ıck (A10)	•	
Black H	istic (A3)		Loamy Mucl	ky Mineral	(F1) (LRR	(O)				MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley	ed Matrix ((F2)					9) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					-	Loamy Soils	(F20)
_	Bodies (A6) (LRR P		Redox Dark					A 153B)	:-L (TEO)	
	ucky Mineral (A7) (Li		Depleted Da					ent Mater		-12\
l	resence (A8) (LRR U uck (A9) (LRR P, T))	Redox Depr Marl (F10) (0)			allow Dan Explain in I	(Surface (TF	- 12)
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)	Outer (E	.χριαπ π ι	(Ciriarita)	
	ark Surface (A12)	- ()	Iron-Mangai				T) ³ Indica	tors of hyd	drophytic veg	etation and
Coast F	Prairie Redox (A16) (I	MLRA 150A)	Umbric Surf	ace (F13)	(LRR P, T	, U)	wetla	nd hydrol	ogy must be	present,
Sandy I	Mucky Mineral (S1) (I	RR O, S)	Delta Ochrid	(F17) (ML	RA 151)		unles	s disturbe	ed or problem	natic.
	Gleyed Matrix (S4)		Reduced Ve							
-	Redox (S5)		Piedmont FI					.==>		
	d Matrix (S6)		Anomalous	Bright Loai	my Soils (F20) (MLR /	A 149A, 153C,	153D)		
	urface (S7) (LRR P, S Layer (if observed):						1			
_										
Type:	achae):		_				Uvdria Sail D)=aaan4?	Vaa	No. V
	iches):						Hydric Soil P	resent?	Yes	No
Remarks:										



Photo 1 Upland data point whlf005_u facing east



Photo 2 Upland data point whlf005_u facing north

Project/Site: Atlantic Coast Pipelin	е	City/C	ounty: Halifax County		Sampling Date: 12/9/2015			
Applicant/Owner: Dominion	State: NC	Sampling Point: whlf006s_w						
Investigator(s): SH, AS		Section						
Subragion (LDD or MLDA): P		1 at: 36.37385579	Long:	77.6008482	Glope (7/)			
Landform (hillslope, terrace, etc.): Subregion (LRR or MLRA): P Soil Map Unit Name: Chastain and	Bibb soils 0 to 1	Lat 1 percent slopes frequent	Long tlv flooded	NIM/L alasa:Ga	Datum None			
Are climatic / hydrologic conditions								
Are Vegetation, Soil				I Circumstances" p	present? Yes No			
Are Vegetation, Soil	_, or Hydrology _	naturally problema	tic? (If needed,	explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present?	Yes •	/ No						
Hydric Soil Present?		/ No	Is the Sampled Area		, N-			
Wetland Hydrology Present?		No	within a Wetland?	Yes	, No			
HYDROLOGY								
Wetland Hydrology Indicators:				-	ators (minimum of two required)			
Primary Indicators (minimum of o	-			Surface Soil				
Surface Water (A1)		Aquatic Fauna (B13)			getated Concave Surface (B8)			
High Water Table (A2)		Marl Deposits (B15) (LRF		Drainage Patterns (B10) Moss Trim Lines (B16)				
✓ Saturation (A3) Water Marks (B1)		Hydrogen Sulfide Odor (C Oxidized Rhizospheres a		• • •				
Sediment Deposits (B2)		Presence of Reduced Iron		Crayfish Burrows (C8)				
Drift Deposits (B3)		Recent Iron Reduction in						
Algal Mat or Crust (B4)		Thin Muck Surface (C7)	, ,		Position (D2)			
Iron Deposits (B5)		Other (Explain in Remark	s)	Shallow Aquitard (D3)				
Inundation Visible on Aerial I	magery (B7)			FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)			
Field Observations:		0.25						
		Depth (inches): 0.25	<u>'</u>					
Water Table Present?	es No	Depth (inches): $\frac{10}{0}$ Depth (inches): $\frac{1}{0}$		Wetland Hydrology Present? Yes ✔ No				
Saturation Present? Y (includes capillary fringe)	es <u> </u>	Depth (inches):	wetland i	, 				
Describe Recorded Data (stream	gauge, monitorin	ng well, aerial photos, pre	vious inspections), if ava	ailable:				
Domorko								
Remarks:								

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species
1. Acer rubrum	15	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Ilex opaca	5	Yes	FAC	
3.				Total Number of Dominant Species Across All Strata: 5 (B)
				Species Across Air Strata (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Bassalana a la das susalesta et
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	20	= Total Cove	ar .	OBL species0 x 1 =0
50% 51.1.1			1	FACW species5 x 2 =10
50% of total cover:10	20% of	total cover:		FAC species 85 x 3 = 255
Sapling/Shrub Stratum (Plot size:15)				FACU species0 x 4 =0
1. Ligustrum sinense	60	Yes	FAC	0
2				UPL species $\begin{array}{c} 0 \\ 90 \\ \end{array}$ $\begin{array}{c} x = 0 \\ 265 \\ \end{array}$
3				Column Totals: (A) (B)
				2.04
4				Prevalence Index = B/A =2.94
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				<u> </u>
<u> </u>	60	= Total Cove		3 - Prevalence Index is ≤3.0¹
30			40	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 30	20% of	total cover:		
Herb Stratum (Plot size:5				¹ Indicators of hydric soil and wetland hydrology must
1. Ligustrum sinense	5	Yes	FAC	be present, unless disturbed or problematic.
2. Onoclea sensibilis	5	Yes	FACW	Definitions of Four Vegetation Strata:
3.				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				of size, and woody plants less than 3.20 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	10	= Total Cove	er	
50% of total cover: 5		total cover:	_	
	20 /0 01	total cover.		
/ 100 d) 11110 dilataini (1 100 dilataini)				
1				
2				
3				
4.				
5				Hydrophytic
		= Total Cove		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations belo	w).			
, , ,	•			

SOIL Sampling Point: whlf006s_w

Depth	Matrix	uopiii		x Features			n the absence of indicators.)				
(inches)	Color (moist)					Loc ²	Texture Remarks				
0-20	10YR 4/1	97 1	0YR 3/4	3	С	M	SCL				
		· — — —									
		· — — –									
	•										
		· — — –									
		· — — —									
¹ Type: C=C	oncentration, D=Dep	letion. RM=R	Reduced Matrix. M	S=Masked	Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matri	х.		
	Indicators: (Applic					-		Problematic Hydric			
Histoso	I (A1)		Polyvalue Be	elow Surfac	e (S8) (L	RR S. T. U	1 cm Muc	k (A9) (LRR O)			
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)			
	istic (A3)		Loamy Muck					Vertic (F18) (outside l	MLRA 150A.B)		
	en Sulfide (A4)		Loamy Gleye			-,		Floodplain Soils (F19)			
	d Layers (A5)		✓ Depleted Ma		,			ıs Bright Loamy Soils (
	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)		(MLRA		•		
_	ucky Mineral (A7) (LF		Depleted Da	•	,			nt Material (TF2)			
Muck P	resence (A8) (LRR U)	Redox Depre	essions (F8	3)		Very Shal	low Dark Surface (TF1	2)		
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	_RR U)			Other (Ex	plain in Remarks)			
Deplete	d Below Dark Surface	e (A11)	Depleted Oc	hric (F11) (MLRA 1	51)					
Thick D	ark Surface (A12)		Iron-Mangan	iese Masse	es (F12) (LRR O, P,	•	rs of hydrophytic vege			
	Prairie Redox (A16) (N		Umbric Surfa	ace (F13) (LRR P, T	, U)		d hydrology must be p			
-	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric				unless	disturbed or problema	tic.		
	Gleyed Matrix (S4)		Reduced Ve								
-	Redox (S5)		Piedmont Flo								
	d Matrix (S6)		Anomalous I	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C, 15	53D)			
	ırface (S7) (LRR P, S						Т				
Restrictive	Layer (if observed):										
Type:											
Depth (ir	iches):						Hydric Soil Pro	esent? Yes	No		
Remarks:											
ĺ											
ı											
1											



Photo 1 Wetland data point whlf006s_w facing northeast



Photo 2
Wetland data point whlf006s_w facing northwest

Project/Site: Atlantic Coast Pipeline	City/Count	ty: Halifax County		Sampling Date: <u>12/9/2015</u>			
Applicant/Owner: Dominion		State: NC Sampling Point: whlf006_u					
Investigator(s): SH, AS Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Terrace							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Chastain and Bibb soils, 0 to 1 per	Lat rcent slopes, frequently fl	ooded	NIM/L algorific	Datum			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology							
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, ex	plain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site ma	ap showing sampli	ng point locatior	ns, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes	No						
Hydric Soil Present? Yes	No 🗸	the Sampled Area thin a Wetland?	Vac	No			
Wetland Hydrology Present? Yes	. No	illii a wellanu?	res	NO			
HYDROLOGY							
Wetland Hydrology Indicators:		Ş	Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	. <u>.</u>	Surface Soil	<u> </u>			
•	atic Fauna (B13)	 -		getated Concave Surface (B8)			
	Deposits (B15) (LRR U)		Drainage Pat				
	rogen Sulfide Odor (C1)		Moss Trim Li				
Water Marks (B1) Oxic	dized Rhizospheres along	Living Roots (C3)	· · ·				
Sediment Deposits (B2) Pres	sence of Reduced Iron (C	4) _	Crayfish Burrows (C8)				
	ent Iron Reduction in Tille	ed Soils (C6)					
	Muck Surface (C7)	-	Geomorphic Position (D2)				
Iron Deposits (B5) Other Inundation Visible on Aerial Imagery (B7)	er (Explain in Remarks)	_	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)		-	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)				
Field Observations:		·-	opnagnamm	1000 (20) (21111 1, 0)			
	Depth (inches):						
	Depth (inches):						
Saturation Present? Yes No	Depth (inches):	Wetland Hy	Wetland Hydrology Present? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring w	ell aerial photos previou	s inspections) if avail	ahle:				
Describe Recorded Data (Stream gauge, monitoring w	eli, aeriai priotos, previou	s mspections), ii avail	abie.				
Remarks:							

Trac Stratum (Blat size: 30	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:) 1 Liquidambar styraciflua	<u>% Cover</u>	Species? Yes	<u>Status</u> FAC	Number of Dominant Species That Are ORL FACW or FAC: 5 (A)
11	10	Yes		That Are OBL, FACW, or FAC:5 (A)
2. Ulmus americana 3		res	FAC_	Total Number of Dominant Species Across All Strata: 6 (B)
4.				(B)
5.				Percent of Dominant Species That Are OBL FACW or FAC: 83.33333333 (A/B)
				That Are OBL, FACW, or FAC: 83.3333333 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	20 .			OBL species $0 \times 1 = 0$
500% - 64-4-1 - 200-200 10		= Total Cov	1	FACW species0 x 2 =0
50% of total cover:	20% of	total cover:	·	FAC species 130 x 3 = 390
Sapling/Shrub Stratum (Plot size: 15)	75	Voc	FAC	FACU species0 x 4 =0
1. Ligustrum sinense		Yes	-FAC	UPL species 0 x 5 = 0
2		·		Column Totals: 130 (A) 390 (B)
3				Column Totals (A) (B)
4				Prevalence Index = B/A =3
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	75	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:37.5	20% of	total cover:	. 15	1 Toblematio 11yarophytic Vegetation (Explain)
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1. Ligustrum sinense	25	Yes	FAC	be present, unless disturbed or problematic.
2 Athyrium asplenioides	10	Yes	FAC	Definitions of Four Vegetation Strata:
3.				
			•	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 5 m. bbit and greater than 5.25 it (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
4		= Total Cov	_	
50% of total cover: 17.5	20% of	total cover:	:	
Woody Vine Stratum (Plot size:)				
1. Vitis sp.	10	Yes		
2				
3				
4				
5				Hydrophytic
	0 :	= Total Cov	er	Vegetation
50% of total cover: 5		total cover:	•	Present? Yes No
Remarks: (If observed, list morphological adaptations below				
Temans: (ii observed, list morphological adaptations belo	w).			

SOIL Sampling Point: whlf006_u

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)	
Depth	Matrix			x Features					
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remark	S
0-14	10YR 4/3	100				LFS			
14-20	10YR 5/6	85 7	7.5YR 4/6	15	С	M	LS		
·									
·									-
	-								
	oncentration, D=Dep					ains.		L=Pore Lining, M=Ma	
-	Indicators: (Application	able to all Li						r Problematic Hydr	ic Soils":
Histosol	• •		Polyvalue Be					ck (A9) (LRR O)	
	oipedon (A2)		Thin Dark Su					ck (A10) (LRR S)	
	stic (A3)		Loamy Muck			(O)		Vertic (F18) (outsid	
	en Sulfide (A4)		Loamy Gley		F2)			t Floodplain Soils (F1	
	d Layers (A5)	T 11\	Depleted Ma Redox Dark		·e)			us Bright Loamy Soil	S (F2U)
_	Bodies (A6) (LRR Paucky Mineral (A7) (LF		Depleted Da	•	,		(MLRA	ent Material (TF2)	
	esence (A8) (LRR U		Redox Depre					allow Dark Surface (T	F12)
	uck (A9) (LRR P, T)	,	Marl (F10) (I		3)			xplain in Remarks)	1 12)
	d Below Dark Surface	e (A11)	Depleted Oc		(MLRA 1	51)	00. (2.	xpiairi ii ritomarko)	
-	ark Surface (A12)	,	Iron-Mangar				T) ³ Indicate	ors of hydrophytic ve	getation and
	rairie Redox (A16) (N	ILRA 150A)			. , .		•	nd hydrology must be	-
	Mucky Mineral (S1) (L		Delta Ochric	(F17) (ML	.RA 151)		unles	s disturbed or probler	matic.
Sandy C	Bleyed Matrix (S4)		Reduced Ve	rtic (F18) (MLRA 15	0A, 150B)			
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 149	9A)		
	Matrix (S6)		Anomalous I	Bright Loar	ny Soils (F20) (MLR	A 149A, 153C, 1	53D)	
	rface (S7) (LRR P, S								
Restrictive	Layer (if observed):								
Type:									
Depth (in	ches):		<u>—</u>				Hydric Soil P	resent? Yes	No
Remarks:									



Photo 1 Upland data point whlf006_u facing northeast



Photo 2
Upland data point whlf006_u facing southwest