

Photo 1 Upland data point WAUB106\_u facing northwest



Photo 2
Upland data point WAUB106\_u facing southwest

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Augusta County		Sampling Date: 8/27/2015	
				State: VA	Sampling Point: wauc101e_w	
	on, Township, Range: No					
Landform (hillslope, terrace, etc.): Depress						
Subregion (LRR or MLRA): S						
Soil Map Unit Name: Aqualfs, nearly level				NWI classifi	cation: PUBHh	
Are climatic / hydrologic conditions on the s	ite typical for t					
Are Vegetation, Soil, or Hyd	Irology	significantly disturb	ped? Are "Normal	I Circumstances"	present? Yes No	
Are Vegetation, Soil, or Hyd						
SUMMARY OF FINDINGS – Atta						
Hydrophytic Vegetation Present?	Yes	No. 🗸				
Hydric Soil Present?	Yes /	No No	Is the Sampled Area	V V	No	
	Yes 🗸		within a Wetland?	res	NO	
Remarks:						
and forming hummocks.						
HYDROLOGY						
Wetland Hydrology Indicators:					ators (minimum of two required)	
Primary Indicators (minimum of one is req	uired; check a	III that apply)		Surface Soi	Cracks (B6)	
Surface Water (A1)	Tr		getated Concave Surface (B8)			
High Water Table (A2)		ydrogen Sulfide Odd		_	atterns (B10)	
Saturation (A3)			es on Living Roots (C3)	Moss Trim L		
Water Marks (B1)		resence of Reduced	` '		Water Table (C2)	
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Bu		
Drift Deposits (B3) Algal Mat or Crust (B4)		nin Muck Surface (C ther (Explain in Ren			/isible on Aerial Imagery (C9) Stressed Plants (D1)	
Algal Mat of Crust (B4) Iron Deposits (B5)	0	iller (Explain in Nen	iaiks)		Position (D2)	
Inundation Visible on Aerial Imagery (	(B7)			Shallow Aqu		
Water-Stained Leaves (B9)	(=. )			Microtopographic Relief (D4)		
Aquatic Fauna (B13)				✓ FAC-Neutra	• • •	
Field Observations:						
Surface Water Present? Yes	No 🖊 D	Depth (inches):				
		Depth (inches):				
		Depth (inches):		lydrology Prese	nt? Yes <u>/</u> No	
(includes capillary fringe)  Describe Recorded Data (stream gauge, r	manitaring wal	Lagric photos pro	views inspections) if ave	silabla		
Describe Recorded Data (stream gauge, i	nonitoring wei	i, aeriai priotos, pre	vious inspections), ii ava	mable:		
Remarks:						
Hydrology indicators present						

'EGETATION (Four Strata) – Use scientific na	Sampling Point: wauc101e_w			
	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	-	· <del></del>		That Are OBL, FACW, or FAC:0 (A)
2	-			Total Number of Dominant
3		. <del></del>		Species Across All Strata: 1 (B)
4				Percent of Dominant Species
5		. <u></u>		That Are OBL, FACW, or FAC:  0 (A/B)
6		. <u> </u>		
7	-	. <u></u>		Prevalence Index worksheet:
	0	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:_	0	ODL species
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1	-	. <u></u>		FAC species 0 x 3 = 0
2				FACU species x 4 = 0
3				UPL species 80 x 5 = 400
4				Column Totals: (A) (B)
5				Prevalence Index = R/A = 4.61
6				1 Tevalence mack = B/T(=
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
<u>.                                    </u>	0	= Total Cove		3 - Prevalence Index is ≤3.0¹
50% of total cover:		total cover:_	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5 )	2070 01			data in Remarks or on a separate sheet)
1. Eragrostis spectabilis	80	Yes	UPL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Eleocharis palustris	5	No	OBL	
3. Persicaria maculosa	5	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
·		· -		be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7	-	· ——		height.
8	-	· <del></del>		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10	•			m) tall.
11	90	· ——		Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 45		= Total Cove		of size, and woody plants less than 3.28 ft tall.
0070 01 total 00001:	20% 01	total cover:_		Woody vine – All woody vines greater than 3.28 ft in
. (1 lot size)				height.
1				
2		·		
3	•			
4	-	· ——		Hydrophytic
5				Vegetation No. No.
		= Total Cove	^	Present? Yes No
50% of total cover:0		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

	cription: (Describe t	o the de	•			or confirm	the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	S Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10 YR 3/1	98	5 YR 3/4	2	C Type	PL	CL	Remarks
	· <del></del>			-			•	
								-
				-				
				-		<del></del>	-	· -
1Type: C-C	Concentration, D=Depl	etion PN	M-Peduced Matrix MS	S-Macked	d Sand Gr	raine	<sup>2</sup> l ocation: E	PL=Pore Lining, M=Matrix.
	Indicators:	Guori, ixiv	i-Reduced Matrix, Mc	J-IVIASKE	J Sand Oi	airis.		cators for Problematic Hydric Soils <sup>3</sup> :
-			Davis Courtage	(07)				•
Histoso			Dark Surface		(00) (			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148) (	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)		'	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		✓ Redox Dark S	,	,			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar				<u> </u>	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) (	(LRR N,		
	A 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
Sandy I	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	<b>8)</b> w	etland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> uı	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	oches).						Hydric Soi	il Present? Yes No
							Tiyane oo	11 1 C3CIII: 1 C3 1 C
Remarks:								
lydric soil pi	resent							



Photo 1
Wetland data point wauc101e\_w facing southwest



Photo 2
Wetland data point wauc101e\_w facing northwest

Project/Site: Atlantic Coast Pipeline	City/0	County: Augusta County	s	Sampling Date: 8/27/2015		
Applicant/Owner: DOMINION			State: VA	Sampling Point: wauc101_u		
	Secti			. , •		
Landform (hillslope, terrace, etc.): Berm			e, convex, none): convex Slope (%): 20			
Subregion (LRR or MLRA): S						
Soil Map Unit Name: Aqualfs, nearly level			NWI classificat	ion: None		
Are climatic / hydrologic conditions on the site ty						
Are Vegetation, Soil, or Hydrolo						
Are Vegetation, Soil, or Hydrolo						
SUMMARY OF FINDINGS – Attach						
				mportant routuros, stor		
	No	Is the Sampled Area				
	No	within a Wetland?	Yes	. No		
Wetland Hydrology Present? Yes  Remarks:	No					
HYDROLOGY						
Wetland Hydrology Indicators:		S	econdary Indicato	rs (minimum of two required)		
Primary Indicators (minimum of one is required	d; check all that apply)		_ Surface Soil Cr			
Surface Water (A1)	True Aquatic Plants			tated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Oc		_ Drainage Patte			
Saturation (A3)	res on Living Roots (C3)	_ Moss Trim Line	es (B16)			
Water Marks (B1)	Presence of Reduce	d Iron (C4)	_ Dry-Season Wa	ater Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	_ Crayfish Burrov	ws (C8)		
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	<del></del>	essed Plants (D1)		
Iron Deposits (B5)		_	_ Geomorphic Po			
<ul><li>Inundation Visible on Aerial Imagery (B7)</li><li>Water-Stained Leaves (B9)</li></ul>		_	Shallow Aquitard (D3) Microtopographic Relief (D4)			
Aquatic Fauna (B13)		_	FAC-Neutral Test (D5)			
Field Observations:		_				
	Depth (inches):					
	Depth (inches):					
	Depth (inches):		drology Present?	P Yes No ✓		
(includes capillary fringe)  Describe Recorded Data (stream gauge, moni	toring well porial photos pr	avious inspections) if avails	blo			
Describe Recorded Data (stream gauge, mont	toring well, aerial priotos, pre	evious irispections), ii avalia	bie.			
Remarks:						
No hydrology indicators prešent						

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

Tree Stratum (Plot size: \_\_\_\_\_)

Sapling/Shrub Stratum (Plot size: 15 )

Herb Stratum (Plot size: \_\_\_

3. Cirsium vulgare

4. Phleum pratense

1. Taraxacum officinale

2. Trifolium hybridum

5. Plantago major 5

) – Use scientific n				Sampling Point: wauc101_u
30	Absolute % Cover	Dominant Ir Species?		Dominance Test worksheet:
/	70 00701	Ореспесь:	Otatas	Number of Dominant Species That Are OBL, FACW, or FAC:  (A
				Total Number of Dominant Species Across All Strata:  1 (B
				Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A
				Prevalence Index worksheet:
	0	Total Cove		Total % Cover of: Multiply by:
0% of total cover:0	20% of	total cover:	0	OBL species0 x 1 =0
15				FACW species x 2 =
				FAC species $0 \times 3 = 0$
				FACU species x 4 = 320
				UPL species 0 x 5 = 0
				Column Totals:80 (A)320 (
				Prevalence Index = B/A = 4
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 0		= Total Cove	r 0	4 - Morphological Adaptations <sup>1</sup> (Provide support
50% of total cover:0	20% of	total cover:_		data in Remarks or on a separate sheet)
)	50	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	15	No	FACU	
	5	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
		No	FACU	be present, unless disturbed or problematic.
	5	No	FACU	Definitions of Four Vegetation Strata:
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
				more in diameter at breast height (DBH), regardless height.
				Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than or equal to 3.28 ft (
				m) tall.
				Herb – All herbaceous (non-woody) plants, regardle
	80	Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40		total cover:_	16	Woody vine All woody vines greater than 2.00 ft
30 )				Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic
				Vegetation
_		Total Cove		Present? Yes No
60% of total cover:	20% of	total cover:	0	

Remarks: (Include photo numbers here or on a separate sheet.)

Woody Vine Stratum (Plot size: \_\_\_\_\_)

	cription: (Describe t	o the depth				or confirm	the absence	of indicat	ors.)		
Depth (inches)	Matrix		Redo	x Features	5 Turn = 1	Loc <sup>2</sup>	Tavetores		D	l.o	
(inches) 0-16	Color (moist) 10 YR 3/2	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	LOC	<u>Texture</u> CL	-	Remar	KS	
0-10	10 110 3/2										
							-				
								-			
			_					-			
<sup>1</sup> Type: C=C	concentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: F	L=Pore Lin	ning, M=Mat	rix.	
	Indicators:	•	•						roblematic		oils³:
Histoso	I (A1)		Dark Surface	(S7)			2	cm Muck	(A10) <b>(MLR</b>	A 147)	
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	II RA 147.			e Redox (A		
	istic (A3)		Thin Dark Su		. , .		, \	(MLRA 1		.0)	
	en Sulfide (A4)		Loamy Gleye	, ,	•	,,	F		loodplain So	oils (F19)	
	d Layers (A5)		Depleted Mar		· <del>-</del> /		<u> </u>	(MLRA 1		)o (1 10)	
	uck (A10) (LRR N)		Redox Dark		·6)		\		w Dark Surf	ace (TF12)	١
	d Below Dark Surface	(A11)	Depleted Dar						ain in Rema		,
	ark Surface (A12)	(,,,,,	Redox Depre				_ `	zo. (=z.p			
	Mucky Mineral (S1) <b>(L</b>	RR N.	Iron-Mangan			LRR N.					
	A 147, 148)	,	MLRA 13		30 (i iz) <b>(</b>						
	Gleyed Matrix (S4)		Umbric Surfa	•	MIRA 13	6. 122)	<sup>3</sup> Inc	licators of h	nydrophytic	vegetation	and
	Redox (S5)		Piedmont Flo						ology must	-	
	d Matrix (S6)		Red Parent N					-	ped or probl		,
	Layer (if observed):		Red r drene n	natorial (i	Z I) (III ZIX	A 127, 147	, ui	ilcoo diotan	oca or probl	omano.	
Type:	_ayo: ( oboo: rou).										
	ahaa\.		_				Usalvia Cai	Draganta	Vaa	Na	<b>/</b>
	iches):		_				Hydric Soi	riesent?	Yes	No _	
Remarks:											
lo hydric soi	I present										



Photo 1
Upland data point wauc101\_u facing northeast



Photo 2
Upland data point wauc101\_u facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: Augusta			Sampling Date: 10/7/2014			
Applicant/Owner: Dominion				Sampling Point: WAUB001e_v			
Investigator(s): TP, LE		Section	on, Township, Range: No	PLSS in this area	1		
Landform (hillslope, terrace, etc.): dra							
Subregion (LRR or MLRA):	La	t: 38.06154	Lona: -79.	04862775	Datum: WGS 1984		
Soil Map Unit Name: Aqualfs, nearly	level			NWI classific	ation: None		
Are climatic / hydrologic conditions or	the site typical						
Are Vegetation, Soil,							
Are Vegetation, Soil, Coll, Coll							
SUMMARY OF FINDINGS –							
		-	.pg pe		,portaint routaroo, oto:		
		No No	Is the Sampled Area				
Hydric Soil Present?		No No	within a Wetland?	Yes	No		
Wetland Hydrology Present?  Remarks:	Yes	NO					
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one	is required; che	ck all that annly)		Surface Soil			
Surface Water (A1)		R14)		getated Concave Surface (B8)			
High Water Table (A2)					tterns (B10)		
Saturation (A3)	Moss Trim Li						
Water Marks (B1)	es on Living Roots (C3) d Iron (C4)		Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)				
Drift Deposits (B3)		_ Thin Muck Surface (C	27)	Saturation V	sible on Aerial Imagery (C9)		
			Explain in Remarks)  Stunted or Stressed Plants (D1)				
Iron Deposits (B5)					Position (D2)		
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (B9)				<ul><li>✓ Microtopographic Relief (D4)</li><li>✓ FAC-Neutral Test (D5)</li></ul>			
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations: Surface Water Present? Yes	No. V	Donth (inches)					
		Depth (inches): Depth (inches):					
		Depth (inches):		Judralagy Presen	nt? Yes / No		
(includes capillary fringe)	110	Deptil (illiches)	Wetiand i	Tydrology Fresei	it: 165 NO		
Describe Recorded Data (stream ga	uge, monitoring	well, aerial photos, pre	vious inspections), if ava	ailable:			
Remarks:							
microtopography caused by hoof prir	nts						

Sampling P	oint: WAUB001e_w
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00	Absolute	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				T. IN I CD
3		· ·		Total Number of Dominant Species Across All Strata:  1 (B)
_				Species Across Air Strata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species 70 x 1 = 70
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species0 x 3 =0
				FACU species0 x 4 =0
2				UPL species 0 x 5 = 0
3				70 70 1
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =1
6				
7				Hydrophytic Vegetation Indicators:
8				✓ 1 - Rapid Test for Hydrophytic Vegetation
		· · · · · · · · ·		✓ 2 - Dominance Test is >50%
9	0	<del></del> -		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:		= Total Cover	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
-	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	00			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Leersia oryzoides	60	Yes	OBL	· · · · · · · · · · · · · · · · ·
2. Persicaria hydropiperoides	10	No	OBL	1 Indicators of hydric coil and watland hydrology must
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Definitions of Four Vegetation offata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		<del></del> -		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
10				m) tall.
11				<b>Herb</b> – All herbaceous (non-woody) plants, regardless
	70	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35		total cover:	14	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
·				neight.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

yper: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  yper: C=Concentration, D=Depletion Indicators of yperior Sands (A1)  yper: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  yper: C=Concentration, D=Depletion Indicators of yperior Sands (A1)  yperior Sands (A1)  yper: C=Concentration, D=Depletion Indicators of yperior Sands (A1)  yperior Sa	Depth	<u>Matrix</u>			<u> Features</u>	S1	. 2		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  rdric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Thin Dark Surface (S7)  Loarrio (S9) (MLRA 147, 148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loarry Gleyed Matrix (F2)  Depleted Matrix (F3)  Z om Muck (A10) (MLRA 147, 148)  Wind RA 147, 148)  Piedmont Floodplain Soils (F19)  Wind RA 146, 147)  Wery Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Wetland hydrology must be present, unless disturbed or problematic.  Type:  Depth (inches):  Hydric Soil Present? Yes V No	inches)	Color (moist)	<u>%</u> 90	Color (moist)	<u>%</u> 10	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
Histosol (A1)	0-12	101K 3/1	90	101K 4/0					
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
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)  Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147)  Zem 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)  Sandy Mucky Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Betrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No									
Histosol (A1)						-			
Histosol (A1)									
Histosol (A1)									-
Histosol (A1)		-							_
Histosol (A1)									
Histosol (A1)									
Histosol (A1)		-							
Histosol (A1)								2	
Histosol (A1)			letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	Location: P	PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)									
Hydrogen Sulfide (A4)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Strictive Layer (if observed):  Type:  Depth (inches):  Thin Dark Surface (S9) (MLRA 147, 148)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Piedmont Floodplain Soils (F19)  (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  Depth (inches):  Hydric Soil Present? Yes No  Hydric Soil Present? Yes No  Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Hydric Soil Present? Yes No  Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Hydric Soil Present? Yes No  Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Piedmont Floodpla								· · · · · · · · · · · · · · · · · · ·	, , ,
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow 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) Nedox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) 3Indicators of hydrophytic vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.  Pestrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No								148) (	
Stratified Layers (A5)							47, 148)	_	
_ 2 cm Muck (A10) (LRR N)						F2)		⊦	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches):  Depth (inches):  Depleted Dark Surface (F7) Depleted Dark Surface (F12) (LRR N, Dark 136) Deplet					` '	C)		,	
Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Umbric Surface (F13) (MLRA 136, 122) Indicators of hydrophytic vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Pestrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No			o (A11)		•	•			
			5 (A11)			. ,		`	oner (Explain in Kemarks)
MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No			DD N				I DD NI		
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) 3Indicators of hydrophytic vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.  Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Setrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No			INN IN,			55 (F12) <b>(</b>	LKK N,		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.    Stripped Matrix (S6)					•	MI RA 13	6 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  **Extrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No									
Pestrictive Layer (if observed):  Type:  Depth (inches):									
Type:				110011 0101111	iatoriai (i z		, , , <u>, , , , , , , , , , , , , , , , </u>	, u	need dictarbed or problematic.
Depth (inches): No									
		ah a a \ .		<u></u>				Usalnia Cail	I Dragant? Vac V Na
emarks:		cnes):						nyaric Soil	resent? tes No
	emarks:								



Photo 1 Wetland data point WAUB001e\_w facing east



Photo 2
Wetland data point WAUB001e\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Augusta			Sampling Date: 10/9/2014			
Applicant/Owner: Dominion	State: VA			Sampling Point: WAUB001_u			
Investigator(s): TP, LE		ion, Township, Range: No					
Landform (hillslope, terrace, etc.): adja	acent to soybear	n field Local re	lief (concave, convex, nor	ne): none	Slope (%): 0		
Subregion (LRR or MLRA):	Lat	38.0615141	Long: -79.0	0486662	Datum: WGS 1984		
Soil Map Unit Name: Aqualfs, nearly le	evel			NWI classific	ation: None		
Are climatic / hydrologic conditions on	the site typical fo						
Are Vegetation, Soil, or							
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
			T		. ,		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	No	Is the Sampled Area				
Wetland Hydrology Present?	Yes		within a Wetland?	Yes	No		
Remarks:	103						
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is	s required; chec	k all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)		(B14)	Sparsely Veg	getated Concave Surface (B8)			
High Water Table (A2)	_	dor (C1)	Drainage Pat	terns (B10)			
Saturation (A3)		Oxidized Rhizosphe	res on Living Roots (C3)	Moss Trim Li	nes (B16)		
Water Marks (B1)		Presence of Reduce		Dry-Season \	Water Table (C2)		
Sediment Deposits (B2)			on in Tilled Soils (C6)	Crayfish Burr			
Drift Deposits (B3)		Thin Muck Surface (			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Re	emarks)	· <del></del>	ressed Plants (D1)		
Iron Deposits (B5)				Geomorphic			
Inundation Visible on Aerial Imag Water-Stained Leaves (B9)	ery (B7)			Shallow Aqui			
Aquatic Fauna (B13)				Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Field Observations:				1710 11001101	1001 (20)		
	No 🗸	Depth (inches):					
		Depth (inches):					
		Depth (inches):		Wetland Hydrology Present? Yes No			
(includes capillary fringe)							
Describe Recorded Data (stream gau	ige, monitoring v	well, aerial photos, pr	evious inspections), if ava	illable:			
Remarks:							

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

Sampling Point: WAUB001_u	

		Absolute	Dominant I		Dominance Test worksheet:		
Tree Stratum (Plot size: 30	)	% Cover	Species?	Status	Number of Dominant Species	0	
1					That Are OBL, FACW, or FAC:	0	(A)
2					Total Number of Dominant		
3					Species Across All Strata:	3	(B)
4							(-)
4					Percent of Dominant Species	0	
5					That Are OBL, FACW, or FAC:	0	(A/B)
6					Prevalence Index worksheet:		
7					Total % Cover of:	Multiply by	
		=	= Total Cove			Multiply by: 0	
50%	of total cover:0	20% of	total cover:_	0	OBL species X I	=	_
Sapling/Shrub Stratum (Plot size:	)				FACW species x 2		_
1. Symphoricarpos orbiculatus		20	Yes	FACU	FAC species0 x 3	s =0	_
2.					FACU species80 x 4	= 320	
					UPL species 0 x 5	0	_
3					80	320	(D)
4					Column Totals: (A)		_ (B)
5					Prevalence Index = B/A = _	4	
6					Hydrophytic Vegetation Indicate		_
7					1 - Rapid Test for Hydrophytic		
8						vegetation	
9					2 - Dominance Test is >50%		
o		20	Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>		
509/	of total cover:10		total cover:_	4	4 - Morphological Adaptations	s <sup>1</sup> (Provide sup	porting
F	or total cover.	20% 01	iolai cover		data in Remarks or on a se	eparate sheet)	
TIEID Stratum (Flot Size.	)	20		E4011	Problematic Hydrophytic Vege	etation <sup>1</sup> (Explai	n)
1. Dactylis glomerata		30	Yes	FACU		(=:,p::::	,
2. Centaurea jacea		20	Yes	FACU	1 Indicators of budris soil and water	and budralagus	aat
3. Trifolium pratense		10	No	FACU	<sup>1</sup> Indicators of hydric soil and wetla be present, unless disturbed or pre-		nust
4					Definitions of Four Vegetation S		
5					Deminions of Four Vegetation e	zu utu.	
6					Tree – Woody plants, excluding vi		
7					more in diameter at breast height height.	(DBH), regardle	ess of
					noight.		
8					Sapling/Shrub - Woody plants, e		
9					than 3 in. DBH and greater than o	r equal to 3.28	ft (1
10					m) tall.		
11					Herb – All herbaceous (non-wood	lv) plants, regar	rdless
		60	= Total Cove	er	of size, and woody plants less tha		
50%	of total cover: 30	20% of	total cover:_	12	Mr. a harden Allanda harden		6.1.
Woody Vine Stratum (Plot size:	30 )				<b>Woody vine</b> – All woody vines green height.	eater than 3.26	IUIN
1	,				neight		
_							
3							
4					Hydrophytic		
5					Vegetation		
		0 =	= Total Cove	er	Present? Yes	No	
50%	of total cover: 0	20% of	total cover:_	0			
Remarks: (Include photo numbers he	re or on a separate sh	neet.)					
	·	,					

Sampling Point: WAUB001\_u

Profile Desc	cription: (Describe to	the depth				or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redo	x Features	S1	. 2	_		_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remar	ks	
0-12	10YR 4/4	100					SCL				
					-			-			
					,						
					-			-			
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion RM=R	educed Matrix MS	S=Masked	Sand Gr	ains	<sup>2</sup> Location: P	I =Pore Lin	ing M=Mat	rix	
Hydric Soil		500H, 100	oddodd Matrix, Mc	<u>J-Macked</u>	Cana On	an 10.			roblematic		oils³:
Histosol			Dark Surface	(\$7)					(A10) <b>(MLR</b>	-	
	oipedon (A2)		Polyvalue Be	. ,	CA (SR) (N	II RΔ 147			e Redox (A	•	
	stic (A3)		Thin Dark Su				0, (	MLRA 14)		,	
	en Sulfide (A4)		Loamy Gleye	, ,	•	47, 140)	<b>-</b>		oodplain Sc	ile (F10)	
	d Layers (A5)		Depleted Mat		1 2)		<u> </u>	(MLRA 1		) (1 13)	
	uck (A10) (LRR N)		Redox Dark \$		:6)		\	•	w Dark Surf	ace (TF12)	1
	d Below Dark Surface	(A11)	Depleted Dar					•	ain in Rema	. ,	,
	ark Surface (A12)	(,,,,	Redox Depre					/ ( _ / tp / c			
	Mucky Mineral (S1) <b>(L</b> l	RR N.	Iron-Mangan			LRR N.					
	A 147, 148)	,	MLRA 13		(/ (-	,					
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6. 122)	<sup>3</sup> Inc	licators of h	ydrophytic	vegetation	and
	Redox (S5)		Piedmont Flo						ology must l	-	
	Matrix (S6)		Red Parent N					-	ped or probl		,
	Layer (if observed):		_		, <b>(</b>	,	<u>,                                     </u>				
Type:											
	ches):		<del></del>				Hydric Soil	Present?	Yes	No	~
Remarks:	,						,				
rtomanto.											



Photo 1 Upland data point WAUB001\_u facing west



Photo 2
Upland data point WAUB001\_u facing east

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 10/27/2015					
Applicant/Owner: DOMINION				State: VA	Sampling Point: wauc102f_w		
Investigator(s): Team C		Section	on, Township, Range: No	PLSS in this are	a		
Landform (hillslope, terrace, etc.): Flo	odplain	Local rel	ief (concave, convex, noi	ne): none	Slope (%): <sup>2</sup>		
Subregion (LRR or MLRA): S	La	t: 38.01312497	Long: -78.	99006918	Datum: WGS 1984		
Soil Map Unit Name: Fluvaquents, ne	arly level			NWI classifi	cation: PEM1A, PEM2/1F,		
Are climatic / hydrologic conditions on	the site typical						
Are Vegetation, Soil,							
Are Vegetation, Soil,							
SUMMARY OF FINDINGS -							
					· ·		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes V	No No	Is the Sampled Area				
Wetland Hydrology Present?		No	within a Wetland?	Yes	No		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:				•	ators (minimum of two required)		
Primary Indicators (minimum of one	is required; che	ck all that apply)		Surface Soi			
Surface Water (A1)		_ True Aquatic Plants (			egetated Concave Surface (B8)		
High Water Table (A2)		_ Hydrogen Sulfide Od		<u>✓</u> Drainage Pa			
Saturation (A3)			es on Living Roots (C3)	Moss Trim I	, ,		
Water Marks (B1)		Presence of Reduced	, ,	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bu			
Drift Deposits (B3) Algal Mat or Crust (B4)		<ul><li>Thin Muck Surface (0</li><li>Other (Explain in Rer</li></ul>			/isible on Aerial Imagery (C9) Stressed Plants (D1)		
Algai Mat of Crust (B4) Iron Deposits (B5)		_ Other (Explain in Nei	ilaiks)	Geomorphic			
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aqu			
Water-Stained Leaves (B9)	go., (=.,			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				✓ FAC-Neutra			
Field Observations:					, ,		
Surface Water Present? Yes	No 🗸	Depth (inches):					
		Depth (inches):	0				
		Depth (inches):	0 Wetland H	lydrology Prese	nt? Yes ✔ No		
(includes capillary fringe)							
Describe Recorded Data (stream ga	uge, monitoring	well, aerial priotos, pre	vious irispections), ii ava	mable:			
Remarks:							
Wetland hydrology present							

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

\_)

50% of total cover: \_\_\_

50% of total cover: \_\_\_\_5

% Cover Species? Status
60 Yes FAC

15

5

10

= Total Cover 20% of total cover:\_

10 = Total Cover

20% of total cover:

35 = Total Cover

0 = Total Cover

20% of total cover:

10

5

50% of total cover: 17.5 20% of total cover:

30

Tree Stratum (Plot size: \_

2. Quercus michauxii

Sapling/Shrub Stratum (Plot size: 15

Quercus falcata

1. Acer rubrum

1. Acer rubrum

Herb Stratum (Plot size: 1. Phalaris arundinacea

2. Lysimachia nummularia

3. Mentha arvensis

olants.		Sampling F	Point: <u>wauc102f_w</u>	
Dominant Ir		Dominance Test worksheet:		
Species? _ Yes	Status FAC	Number of Dominant Species		
No	FACW	That Are OBL, FACW, or FAC	C:4 (A)	)
No	FACU	Total Number of Dominant Species Across All Strata:	4 (B)	)
		Percent of Dominant Species That Are OBL, FACW, or FAC		/B)
	<del></del>	Prevalence Index workshee	t:	
= Total Cove	-	Total % Cover of:	Multiply by:	
= Total Cover total cover:	16	OBL species0	x 1 =0	
lotal cover	<del></del>	FACW species 50	x 2 = 100	
Yes	FAC	FAC species 70	x 3 = 210	
165	FAC	·	20	
		FACU species	X 4 =	
		UPL species	x 5 =	
		Column Totals: 125	(A)(I	B)
		Prevalence Index = B/A	A = 2.64	
		Hydrophytic Vegetation Ind	icators:	
		1 - Rapid Test for Hydrop		
		2 - Dominance Test is >5	-	
		✓ 3 - Prevalence Index is ≤		
= Total Cove				·~~
total cover:	2	4 - Morphological Adapta		ing
	l	data in Remarks or on	•	
Yes	FACW	Problematic Hydrophytic	Vegetation (Explain)	
Yes	FACW			
No	FACW	<sup>1</sup> Indicators of hydric soil and v be present, unless disturbed of		:
		Definitions of Four Vegetati	<u> </u>	
		_		
		<b>Tree</b> – Woody plants, excluding more in diameter at breast he height.	• ,	
		Sapling/Shrub – Woody plan than 3 in. DBH and greater th m) tall.		
= Total Cove	r	<b>Herb</b> – All herbaceous (non-wof size, and woody plants less		SS
total cover:_	7	Woody vine – All woody vine height.	es greater than 3.28 ft ir	1
= Total Covertotal cover:_		Hydrophytic Vegetation Present? Yes <u></u>	<u>′</u> No	

50% of total cover: \_\_\_0 Remarks: (Include photo numbers here or on a separate sheet.) Morphological adaptations.

Woody Vine <u>Stratum</u> (Plot size: \_\_\_\_\_\_)

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-8	2.5Y 5/2	95	7.5 YR 3/4	5	C	PL	SICL	
8-16	2.5 Y 5/4	80	5 YR 3/4	20	С	PL/M	SICL	
		· ———						
		<del></del>						
		: ( <del></del>						
					-			
1Typo: C-C	oncontration D_Dan	lotion DM	=Reduced Matrix, MS		Sand Cr		<sup>2</sup> Location: D	PL=Pore Lining, M=Matrix.
Hydric Soil		ielion, Kiv	=Reduced Matrix, Mc	=iviaskeu	Sanu Gr	ali 15.		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(97)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		(S2) A	II R A 147		Coast Prairie Redox (A16)
	istic (A3)		Tolyvalde Be				(	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			41, 140)	<b>√</b> F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		<b>-</b> )		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	ark Surface (A12)	- (	Redox Depre				<u>—</u>	,
	/ //ucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan			LRR N,		
	A 147, 148)	,	MLRA 13		` , '	·		
	Bleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> Ind	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil	l Present? Yes No
Remarks:								



Photo 1
Wetland data point WAUC102f\_w facing east



Photo 2
Wetland data point WAUC102f\_w facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 10/27/2015					
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc102e_					
Investigator(s): Team C			on, Township, Range: No				
Landform (hillslope, terrace, etc.): Floo	odplain	Local reli	ief (concave, convex, nor	ne): none	Slope (%):2		
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Fluvaquents, nea	arly level			NWI classific	cation: None		
Are climatic / hydrologic conditions on	the site typical f						
Are Vegetation, Soil, o							
Are Vegetation, Soil, o							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	Vos. 🗸	No			· · ·		
Hydric Soil Present?		No	Is the Sampled Area	v <b>v</b>	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO		
PEM floodplain wetland associated wi	tn South River.						
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one i	s required; chec	ck all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)		True Aquatic Plants (		Sparsely Ve	getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Dry-Season Water Table (C2)			
Saturation (A3)			es on Living Roots (C3)				
Water Marks (B1)		Presence of Reduced	, ,				
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Geomorphic	tressed Plants (D1)		
Iron Deposits (B5) Inundation Visible on Aerial Imag	iery (R7)			Shallow Aqu	` '		
Water-Stained Leaves (B9)	gery (D7)				aphic Relief (D4)		
Aquatic Fauna (B13)				✓ FAC-Neutral			
Field Observations:					. 55. (25)		
	No 🗸	_ Depth (inches):					
		_ Depth (inches):					
		_ Depth (inches):		lydrology Preser	nt? Yes V No		
(includes capillary fringe)							
Describe Recorded Data (stream gau	ige, monitoring	well, aerial photos, pre	evious inspections), if ava	ailable:			
Remarks:							
Wetland hydrology indicators present							
, , , , , , , , , , , , , , , , , , , ,							

Sampling	Point: wauc102e_	_w1
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
				Openies / toross / tir etrata.
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7	0	-		Total % Cover of: Multiply by:
2		= Total Cove	_	
50% of total cover:0	20% of	total cover:_	0	12
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species x 3 =
2				FACU species X 4 =
3				UPL species
4				Column Totals:113 (A)326 (B)
5				Prevalence Index = B/A =2.88
6				Hydrophytic Vegetation Indicators:
7		-		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	-			3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cove	er	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:_	0	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1. Panicum virgatum	70	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Paspalum laeve	30	Yes	FAC	
3. Vernonia noveboracensis	10	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Juncus effusus	3	No	FACW	be present, unless disturbed or problematic.
·· <del>·</del>			171011	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				Senling/Shrub Weedy plants evaluating vines less
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				Hart All bards account for a country of National States
· · ·	113	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 56.5		total cover:		or orze, and wedgy plante less than orze it tall.
Woody Vine Stratum (Plot size: 30 )	2070 01	total oover		Woody vine – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1		-		
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	er	Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe t	o the de	oth needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	K Feature:		. 2		
(inches)	Color (moist) 2.5 Y 4/2	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup> PL	<u>Texture</u> LS	Remarks
0-10		90	10 YR 3/6	10	C			
10-18	2.5 Y 6/3	97	10 YR 4/6	3	С	PL/M	SCL	
					-	·		·
·								·
		-						
					-			· <del></del>
			-			<del></del>	2	
		etion, RM	=Reduced Matrix, MS	S=Masked	I Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil			D 10 (	(07)				eators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface		oo (CO) <b>/</b> 8	AL DA 447		2 cm Muck (A10) (MLRA 147)
Histic Ep	oipedon (A2)		Polyvalue Be Thin Dark Su				140) (	Coast Prairie Redox (A16) (MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		•	147, 140)	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat		,		<u> </u>	(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark S		<sup>-</sup> 6)		\	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar				(	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	A 147, 148) Gleyed Matrix (S4)		MLRA 136 Umbric Surfa		MIDA 13	RE 122\	3In	dicators of hydrophytic vegetation and
Sandy R			Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					nless disturbed or problematic.
	_ayer (if observed):			•	, ,	· · ·	<u></u>	·
Type:								
Depth (inc	ches):						Hydric Soi	I Present? Yes No
Remarks:								
Hydric soil pre	esent							



Photo 1 Wetland data point WAUC102e\_w1 facing west



Photo 2
Wetland data point WAUC102e\_w1 facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 10/27/2					
Applicant/Owner: DOMINION				_ State: VA	Sampling Point: wauc102e_w2		
Investigator(s): Team C		Section	on, Township, Range: No	PLSS in this area	1		
Landform (hillslope, terrace, etc.): Floor							
Subregion (LRR or MLRA): S		38.01184146	Lona: -78.9	9897908	Datum: WGS 1984		
Soil Map Unit Name: Allegheny-Cotaco	fine sandy loam	ns, 1 to 7 percent slop	oes	NWI classific	ation: None		
Are climatic / hydrologic conditions on the	ne site typical fo	r this time of year? Y	es No	(If no, explain in R	emarks.)		
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	present? Yes V No		
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?				·	· · · · · · · · · · · · · · · · · · ·		
Hydric Soil Present?	Yes V	No Is the Sampled Area		V V	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	tors (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 (		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		✓ Drainage Par			
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li	, ,		
Water Marks (B1)		Presence of Reduced		Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Buri			
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Iron Deposits (B5)	<u> </u>	Other (Explain in Rer	narks)	Geomorphic	tressed Plants (D1)		
Inundation Visible on Aerial Image	ery (B7)						
Water-Stained Leaves (B9)	.iy ( <i>Di</i> )			<ul><li>Shallow Aquitard (D3)</li><li>Microtopographic Relief (D4)</li></ul>			
Aquatic Fauna (B13)				FAC-Neutral			
Field Observations:					( )		
	No 🗸	Depth (inches):					
		Depth (inches):					
Saturation Present? Yes		Depth (inches):		etland Hydrology Present? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge	ie. monitorina w	vell, aerial photos, pre	vious inspections), if ava	ilable:			
Jesonies Hossiasa Zata (ottoani gada)	,e,e	on, aonai priotos, pro	,,				
Remarks:							
Hydrology indicators pesent							

Sampling	Point: wauc102e_	_w2
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00		Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminerat
3				Total Number of Dominant Species Across All Strata: 2 (B)
4.				Operics / toross / till otrata.
		<del></del>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cover		Total % Cover of: Multiply by:  OBL species 0 v.1 = 0
50% of total cover:0	20% of	total cover:	0	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species 90 x 3 = 270
				FACU species5
2				UPL species
3				105 310
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.95
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9				2 - Dominance Test is >50%
s	^			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:	=	= Total Cover	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
<u></u>	20% 01	total cover:		data in Remarks or on a separate sheet)
TIEID Stratum (Flot Size)	40	.,	E40	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Panicum virgatum	40	Yes	FAC	<u> </u>
2. Echinochloa crus-galli	40	Yes	FAC	Indicators of hydric soil and watland hydrology must
3. Cyperus esculentus	10	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Taraxacum officinale	5	No	FACU	Definitions of Four Vegetation Strata:
5. Paspalum laeve	5	No	FAC	Definitions of Four Vegetation offata.
6. Setaria parviflora	5	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	105 =	Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:52.5	20% of	total cover:	21	Was trades Allows to the constant to 0.00 ft.
Woody Vine Stratum (Plot size: 30				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				noight.
3				
4				Hydrophytic
5				Vegetation
	0 =	Total Cover		Present? Yes No No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			<u> </u>
	,			

Sampling Point: wauc102e\_w2

SOIL

Doph (microtes)		cription: (Describe t	o ine ae				oi contirm	uie absence	or muicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	Depth (inches)		%	Color (moist)			l oc²	Texture	Remarks
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									Komarko
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:			-						
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:		-							
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:						-			
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:			-						
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:							· <del></del> -		
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:									
Hydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F7)  Depleted Dark Surface (F7)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Dark Surface (F13) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 136, 122)  Stripped Matrix (S6)  Redox Dark Surface (F12) (MLRA 148)  Whydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Mura 136,  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Depth (inches):  No  Remarks:	1Typo: C-C	concentration D-Dept	otion PM	1_Poducod Matrix MS		4 Sand Gr	oine	<sup>2</sup> Location: D	L_Poro Lining M_Matrix
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) Coast Prairie Redox (A16)  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 (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)  Thick Dark Surface (A12) Redox Depressions (F8) Nursh (147, 148)			ellon, Kiv	=Reduced Matrix, Mc	=iviasket	J Sand Gr	allis.		
Histic Epipedon (A2)	-			Dorle Curfoso	(07)				
Black Histic (A3)						co (S9) <b>(N</b>	AI DA 147		
Hydrogen Sulfide (A4)				· ·				(	
Stratified Layers (A5)							147, 140)	Б	
2 cm Muck (A10) (LRR N)						(1 <del>2</del> )		<u> </u>	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Depleted Dark Surface (F7) Depth (inches):  Depleted Dark Surface (F7) Depleted Dark Surface (F8) Depleted Dark Surface (F12) (LRR N, Dark Dark Surface (F12) (LRR N,						<del>-</del> 6)		V	
Thick Dark Surface (A12)			(A11)			,			
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)			( )					<u>—</u>	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Depth (inches):  Depth (inches):  Sandy Redox (S5)  Hudric Soil Present? Yes No			RR N,				LRR N,		
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)   Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)   Stripped Matrix (S6)    Red Parent Material (F21) (MLRA 127, 147)   Wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No No			•			` , ,	,		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Restrictive Layer (if observed):					•	(MLRA 13	86, 122)	<sup>3</sup> Ind	licators of hydrophytic vegetation and
Restrictive Layer (if observed):  Type:  Depth (inches): Hydric Soil Present? Yes No  Remarks:									
Type: Depth (inches):	-								
Depth (inches): NoRemarks:	Restrictive	Layer (if observed):							•
Depth (inches): NoRemarks:	Type:								
Remarks:		iches):						Hydric Soil	Present? Yes V No
								1.,,	· · · · · · · · · · · · · · · · · · ·
yuit sui pieseii.		rocont							
	Tyuric Soii pi	eseni							



Photo 1
Wetland data point WAUC102e\_w2 facing west

Project/Site: Atlantic Coast Pipeline	City/C	County: Augusta County	Sampling Date: 10/27/2015
Applicant/Owner: DOMINION		State	e: VA Sampling Point: wauc102_u1
	Section	on, Township, Range: No PLSS	in this area
Landform (hillslope, terrace, etc.): Slight slo			
Subregion (LRR or MLRA): S	Lat: 38.01712688	Long: -78.994034	9 Datum: WGS 1984
Soil Map Unit Name: Fluvaquents, nearly le	vel	N	WI classification: None
Are climatic / hydrologic conditions on the si			
Are Vegetation, Soil, or Hydi			
Are Vegetation, Soil, or Hydr			
			ransects, important features, etc.
	Yes No	Is the Sampled Area	
	Yes No	within a Wetland?	Yes No
Wetland Hydrology Present?  Remarks:	Yes No		
HYDROLOGY		0	The telling for the second second
Wetland Hydrology Indicators:			dary Indicators (minimum of two required)
Primary Indicators (minimum of one is requ			urface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants ( Hydrogen Sulfide Od		parsely Vegetated Concave Surface (B8)
High Water Table (A2) Saturation (A3)	Oxidized Rhizospher		rainage Patterns (B10) loss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced		ry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction		rayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (0		aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	marks) St	tunted or Stressed Plants (D1)
Iron Deposits (B5)		G	eomorphic Position (D2)
Inundation Visible on Aerial Imagery (E	B7)	St	hallow Aquitard (D3)
Water-Stained Leaves (B9)			licrotopographic Relief (D4)
Aquatic Fauna (B13)		F/	AC-Neutral Test (D5)
Field Observations:			
	No Depth (inches):		
	No Depth (inches):  No Depth (inches):		No. No. No. No.
Saturation Present? Yes (includes capillary fringe)	No Public Depth (Inches):	wetland Hydroid	ogy Present? Yes No
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pre	evious inspections), if available:	
Remarks:			
No wetland hydrology present			

Sampling P	oint: wauc102_	_u1
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20	Absolute	Dominant Ir		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:		Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:2 (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:
6				Prevalence Index worksheet:
7	0	Total Cause		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cover total cover:		OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15 )	20 /6 01	total cover		FACW species 0 x 2 = 0
``				FAC species 70 x 3 = 210
1				FACU species 25 x 4 = 100
2				UPL species0 x 5 =0
3				Column Totals: 95 (A) 310 (B)
4.       5.				
6				Prevalence Index = B/A = 3.26  Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				. ,
1. Panicum virgatum	50	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Setaria parviflora	20	Yes	FAC	The disease of hydric cell and wather discussions
3. Oxalis stricta	20	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Solanum americanum	5	No	FACU	Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				Continue (Charaka Manaka da atau anda di anaka da atau
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.			_	Herb – All herbaceous (non-woody) plants, regardless
	95	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>47.5</u>		total cover:		Was desides Allowed to design and to the end of the
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				g.m
2			_	
3			_	
4				
5.				Hydrophytic Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover:0		total cover:	0	
Remarks: (Include photo numbers here or on a separate s			·	
(	,			

Profile Des	cription: (Describe	to the dept				or confirm	the absend	ce of indicators.)	
Depth	Matrix		Redo	x Feature	S1	. 2	_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
0-12	10 YR 4/4	100					S		
12-18	10 YR 6/4	100					S		
						· ——	-		
		·				· ——			
						<u> </u>		<u> </u>	
		· ——			-	· ——			
								_	
1	· -						2	_	
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.	3
-	Indicators:						Ind	licators for Problematic Hydric So	oils":
Histoso	l (A1)		Dark Surface					2 cm Muck (A10) (MLRA 147)	
Histic E	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)	
Black H	listic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	147, 148)		(MLRA 147, 148)	
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)			Piedmont Floodplain Soils (F19)	
Stratifie	d Layers (A5)		Depleted Mat					(MLRA 136, 147)	
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)			Very Shallow Dark Surface (TF12)	)
	ed Below Dark Surfac	e (A11)	Depleted Dar				<del></del>	Other (Explain in Remarks)	
Thick D	ark Surface (A12)	, ,	Redox Depre						
	Mucky Mineral (S1) (L	RR N.	Iron-Mangan			LRR N.			
	A 147, 148)	,	MLRA 13		(				
	Gleyed Matrix (S4)		Umbric Surfa	-	MLRA 13	86, 122)	<sup>3</sup> lı	Indicators of hydrophytic vegetation	and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present	
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.	••
	Layer (if observed):		Real alone is	iatoriai (i	21) (IIILIX	A 121, 141	<del>,</del>	uniess disturbed of problematic.	
	Layer (ii observed).								
Type:									
Depth (ir	nches):						Hydric So	oil Present? Yes No _	
Remarks:							•		
lo hydric soi	I present								
,	•								



Photo 1 Upland data point WAUC102\_u1 facing east



Photo 2
Upland data point WAUC102\_u1 facing northwest

Project/Site: Atlantic Coast Pipeline	City/C	County: Augusta County	S	ampling Date: 10/27/2015
Applicant/Owner: DOMINION		S	tate: VA	Sampling Point: wauc102_u2
	Section			· · ·
Landform (hillslope, terrace, etc.): Hill slope				Slope (%): 10
Subregion (LRR or MLRA): S				Datum: WGS 1984
Soil Map Unit Name: Allegheny-Cotaco fine sa	ndy loams, 1 to 7 percent slop	pes	NWI classification	on: None
Are climatic / hydrologic conditions on the site t				
Are Vegetation, Soil, or Hydrold	gy significantly distur	bed? Are "Normal Cir	cumstances" pres	sent? Yes V No
Are Vegetation, Soil, or Hydrold				
SUMMARY OF FINDINGS – Attach			-	
Hudrophytia Vagatatian Brasant?	No 🕊			
	No	Is the Sampled Area		🗸
	No	within a Wetland?	Yes	No
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		<u>Se</u>	condary Indicator	s (minimum of two required)
Primary Indicators (minimum of one is require	d; check all that apply)		Surface Soil Cra	acks (B6)
Surface Water (A1)	True Aquatic Plants (	B14)	Sparsely Veget	ated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od	or (C1)	Drainage Patter	ns (B10)
Saturation (A3)	Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Line	s (B16)
Water Marks (B1)	Presence of Reduced	d Iron (C4)	Dry-Season Wa	iter Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Burrow	/s (C8)
Drift Deposits (B3)	Thin Muck Surface (0	C7)	Saturation Visib	le on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	marks)	Stunted or Stres	ssed Plants (D1)
Iron Deposits (B5)			Geomorphic Po	sition (D2)
Inundation Visible on Aerial Imagery (B7)			Shallow Aquitar	d (D3)
Water-Stained Leaves (B9)			Microtopograph	ic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Te	est (D5)
Field Observations:				
Surface Water Present? Yes N	Depth (inches):			
Water Table Present? Yes N	Depth (inches):			
Saturation Present? Yes N	Depth (inches):		rology Present?	Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, pre	vious inspections), if availab	le:	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Remarks:				
No hydrology indicators present				

		Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30 )		Species?		
l	,				Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2.					Total Number of Deminant
3		-			Total Number of Dominant Species Across All Strata:  2 (B)
k		-			Developed Developed Operation
5					Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/E
S					
					Prevalence Index worksheet:
		0	= Total Cover	-	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species X I =
Sapling/Shrub Stratum (Plot si	ze:)				FACVV species X 2 = 100
					FAC species X3 = 240
					X 4 =
J					UPL species
l					Column Totals:(A)(B)
j					Prevalence Index = B/A =3.48
S					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
3					2 - Dominance Test is >50%
)					3 - Prevalence Index is ≤3.0¹
			= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	50% of total cover: 0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5 )	00			Problematic Hydrophytic Vegetation¹ (Explain)
1. Setaria parviflora		60	Yes	FAC	1 Toblematic Flydrophytic Vegetation (Explain)
2. Apocynum androsaemifolium	<u>n</u>	30	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Taraxacum officinale		15	No No	FACU	be present, unless disturbed or problematic.
Andropogon virginicus		10	No_	FACU	Definitions of Four Vegetation Strata:
5. Oxalis stricta		5	<u>No</u>	FACU	Tree Moody plants evaluding vines 2 in (7.6 cm) of
5. Erigeron strigosus		3	No_		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
7. Solidago rugosa		3	No	FAC	height.
3					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11					Herb – All herbaceous (non-woody) plants, regardless
	62		= Total Cover		of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 63	20% of	total cover:_	25.2	Woody vine – All woody vines greater than 3.28 ft in
Noody Vine Stratum (Plot size	:)				height.
2					
					Hydrophytic
5.					Vegetation Present? Yes No
J			= Total Cover		rieseit: iesivo
	50% of total cover: 0	000/ -4	total cover:	0	

Sampling Point: wauc102\_u2

	cription: (Describe t	o the depth				or confirm	the absence	of indicate	ors.)		
Depth	Matrix		Redo	x Features	<b>T</b> 1	Loc <sup>2</sup>	Tandrone		D	1	
(inches) 0-18	Color (moist) 10 YR 4/4	<u>%</u> 100	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc	<u>Texture</u> S		Remar	KS	
U-10	10 11 4/4										
					-						
1Tuno: C C	Concentration D. Donl	otion DM D	advacd Matrix MG	Mooked	Cond Cr		<sup>2</sup> l section. D	l Doro Lin	ina M Mat	witz	
	concentration, D=Deplement Indicators:	elion, Rivi=R	educed Matrix, MS	<u>s=iviaskeu</u>	Sand Gra	airis.	<sup>2</sup> Location: P		roblematic		oile <sup>3</sup> :
-			D 10 (	(07)						•	Jiis .
Histoso			Dark Surface		(00) (5				(A10) (MLR	•	
	pipedon (A2)		Polyvalue Be		, , ,		148) (		e Redox (A	16)	
	istic (A3)		Thin Dark Su	. ,	•	47, 148)	_	(MLRA 14			
	en Sulfide (A4)		Loamy Gleye		F2)		P		oodplain So	oils (F19)	
	d Layers (A5)		Depleted Mar					(MLRA 1			
	uck (A10) (LRR N)	(* 4 4)	Redox Dark						w Dark Surf		)
	d Below Dark Surface	e (A11)	Depleted Dar					other (Expla	ain in Rema	rks)	
	ark Surface (A12)		Redox Depre								
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,					
	A 147, 148)		MLRA 13	•			3				
	Gleyed Matrix (S4)		Umbric Surfa						ydrophytic	-	
	Redox (S5)		Piedmont Flo					-	ology must l		,
	d Matrix (S6)		Red Parent N	Naterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	less disturb	ed or probl	ematic.	
Restrictive	Layer (if observed):										
Type:			<u></u>								
Depth (in	iches):						Hydric Soil	Present?	Yes	No	~
Remarks:	, -										
lo hydric soi	l nresent										
io riyuric soi	i present										



Photo 1 Upland data point WAUC102\_u2 facing east



Photo 2
Upland data point WAUC102\_u2 facing south

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 10/27/2					
Applicant/Owner: DOMINION			Sampling Point: wauc102f_w				
Investigator(s): Team C Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Flo	odplain	Local rel	ief (concave, convex, noi	ne): none	Slope (%): <sup>2</sup>		
Subregion (LRR or MLRA): S	La	t: 38.01312497	Long: -78.	99006918	Datum: WGS 1984		
Soil Map Unit Name: Fluvaquents, ne	arly level			NWI classifi	cation: PEM1A, PEM2/1F,		
Are climatic / hydrologic conditions on	the site typical						
Are Vegetation, Soil,							
Are Vegetation, Soil,							
SUMMARY OF FINDINGS -							
					· ·		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes V	No No	Is the Sampled Area				
Wetland Hydrology Present?		No	within a Wetland?	Yes	No		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:				•	ators (minimum of two required)		
Primary Indicators (minimum of one	is required; che	ck all that apply)		Surface Soi			
Surface Water (A1)		_ True Aquatic Plants (			egetated Concave Surface (B8)		
High Water Table (A2)		_ Hydrogen Sulfide Od		<u>✓</u> Drainage Pa			
Saturation (A3)			es on Living Roots (C3)	Moss Trim I	, ,		
Water Marks (B1)		Presence of Reduced	, ,	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bu			
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Rer			/isible on Aerial Imagery (C9)		
Algai Mat of Crust (B4) Iron Deposits (B5)		_ Other (Explain in Nei	ilaiks)	<ul><li>Stunted or Stressed Plants (D1)</li><li>Geomorphic Position (D2)</li></ul>			
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (B9)	go., (=.,	Microtopographic Relief (D4)					
Aquatic Fauna (B13)				FAC-Neutral Test (D5)			
Field Observations:					, ,		
Surface Water Present? Yes	No 🗸	Depth (inches):					
		Depth (inches):	0				
		Depth (inches):	0 Wetland H	lydrology Prese	nt? Yes ✔ No		
(includes capillary fringe)							
Describe Recorded Data (stream ga	uge, monitoring	well, aerial priotos, pre	vious irispections), ii ava	mable:			
Remarks:							
Wetland hydrology present							

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

\_)

50% of total cover: \_\_\_

50% of total cover: \_\_\_\_5

% Cover Species? Status
60 Yes FAC

15

5

10

= Total Cover 20% of total cover:\_

10 = Total Cover

20% of total cover:

35 = Total Cover

0 = Total Cover

20% of total cover:

10

5

50% of total cover: 17.5 20% of total cover:

30

Tree Stratum (Plot size: \_

2. Quercus michauxii

Sapling/Shrub Stratum (Plot size: 15

Quercus falcata

1. Acer rubrum

1. Acer rubrum

Herb Stratum (Plot size: 1. Phalaris arundinacea

2. Lysimachia nummularia

3. Mentha arvensis

olants.		Sampling Point: wauc102f_w									
Dominant Ir		Dominance Test worksheet:									
Species? _ Yes	Status FAC	Number of Dominant Species									
No	FACW	That Are OBL, FACW, or FAC	C:4 (A)	)							
No	FACU	Total Number of Dominant Species Across All Strata:	4 (B)	)							
		Percent of Dominant Species That Are OBL, FACW, or FAC		/B)							
	<del></del>	Prevalence Index workshee	t:								
= Total Cove	-	Total % Cover of:	Multiply by:								
= Total Cover total cover:	16	OBL species0	x 1 =0								
lotal cover	<del></del>	FACW species 50	x 2 = 100								
Yes	FAC	FAC species 70	x 3 = 210								
165	FAC	·	20								
		FACU species	X 4 =								
		UPL species	x 5 =								
		Column Totals: 125	(A)(I	B)							
		Prevalence Index = B/A	A =2.64								
		Hydrophytic Vegetation Ind	icators:								
		1 - Rapid Test for Hydrop									
		2 - Dominance Test is >5	-								
		✓ 3 - Prevalence Index is ≤									
= Total Cove				·~~							
total cover:	2	4 - Morphological Adapta		ing							
	l	data in Remarks or on	•								
Yes	FACW	Problematic Hydrophytic	Vegetation (Explain)								
Yes	FACW										
No	FACW	<sup>1</sup> Indicators of hydric soil and v be present, unless disturbed of		:							
		Definitions of Four Vegetati	<u> </u>								
		_									
		<b>Tree</b> – Woody plants, excluding more in diameter at breast he height.	• ,								
		Sapling/Shrub – Woody plan than 3 in. DBH and greater th m) tall.									
= Total Cove	r	<b>Herb</b> – All herbaceous (non-wof size, and woody plants less		SS							
total cover:_	7	Woody vine – All woody vine height.	es greater than 3.28 ft ir	1							
= Total Covertotal cover:_		Hydrophytic Vegetation Present? Yes <u></u>	<u>′</u> No								

50% of total cover: \_\_\_0 Remarks: (Include photo numbers here or on a separate sheet.) Morphological adaptations.

Woody Vine <u>Stratum</u> (Plot size: \_\_\_\_\_\_)

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-8	2.5Y 5/2	95	7.5 YR 3/4	5	C	PL	SICL	
8-16	2.5 Y 5/4	80	5 YR 3/4	20	С	PL/M	SICL	
		· ———						
		<del></del>						
		: ( <del></del>						
					-			
1Typo: C-C	oncontration D_Dan	lotion DM	=Reduced Matrix, MS		Sand Cr		<sup>2</sup> Location: D	PL=Pore Lining, M=Matrix.
Hydric Soil		ielion, Kiv	=Reduced Matrix, Mc	=iviaskeu	Sanu Gr	ali 15.		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(97)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		(S2) A	II R A 147		Coast Prairie Redox (A16)
	istic (A3)		Tolyvalde Be				(	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			41, 140)	<b>√</b> F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		2)		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	ark Surface (A12)	- (	Redox Depre				<u>—</u>	,
	/ //ucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan			LRR N,		
	A 147, 148)	,	MLRA 13		` , '	·		
	Bleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> Ind	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil	l Present? Yes No
Remarks:								



Photo 1
Wetland data point WAUC102f\_w facing east



Photo 2
Wetland data point WAUC102f\_w facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 10/27					
Applicant/Owner: DOMINION					Sampling Point: wauc102e_w1		
Investigator(s): Team C	Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): Floo	ne): none	Slope (%):2					
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Fluvaquents, nea	arly level			NWI classific	cation: None		
Are climatic / hydrologic conditions on	the site typical f						
Are Vegetation, Soil, o							
Are Vegetation, Soil, o							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	Vos. 🗸	No			· · ·		
Hydric Soil Present?		No	Is the Sampled Area	v <b>V</b>	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO		
PEM floodplain wetland associated wi	tn South River.						
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one i	s required; chec	ck all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)		True Aquatic Plants (		Sparsely Ve	getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	tterns (B10)		
Saturation (A3)			es on Living Roots (C3)	Moss Trim L			
Water Marks (B1)		Presence of Reduced	, ,		Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5) Inundation Visible on Aerial Imag	iery (R7)			<ul><li>✓ Geomorphic Position (D2)</li><li>✓ Shallow Aquitard (D3)</li></ul>			
Water-Stained Leaves (B9)	gery (D7)			Shallow Adultard (D3) Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral Test (D5)			
Field Observations:					. 55. (25)		
	No 🗸	_ Depth (inches):					
		_ Depth (inches):					
		_ Depth (inches):		lydrology Preser	nt? Yes / No		
(includes capillary fringe)							
Describe Recorded Data (stream gau	ige, monitoring	well, aerial photos, pre	evious inspections), if ava	ailable:			
Remarks:							
Wetland hydrology indicators present							
, , , , , , , , , , , , , , , , , , , ,							

Sampling	Point: wauc102e_	_w1
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
				Openies / toross / tir etrata.
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7	0	-		Total % Cover of: Multiply by:
2		= Total Cove	_	
50% of total cover:0	20% of	total cover:_	0	12
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species x 3 =
2				FACU species X 4 =
3				UPL species
4				Column Totals:113 (A)326 (B)
5				Prevalence Index = B/A =2.88
6				Hydrophytic Vegetation Indicators:
7		-		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	-			3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cove	er	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:_	0	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1. Panicum virgatum	70	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Paspalum laeve	30	Yes	FAC	
3. Vernonia noveboracensis	10	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Juncus effusus	3	No	FACW	be present, unless disturbed or problematic.
·· <del>·</del>			171011	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				Senling/Shrub Weedy plants evaluating vines less
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				Hart All bards account for a country of National States
· · ·	113	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 56.5		total cover:		or orze, and wedgy plante less than orze it tall.
Woody Vine Stratum (Plot size: 30 )	2070 01	total oover		Woody vine – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1		-		
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	er	Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the in	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	2.5 Y 4/2	90	10 YR 3/6	10	С	PL	LS	
10-18	2.5 Y 6/3	97	10 YR 4/6	3	С	PL/M	SCL	
						· <del></del>		
							-	
					-			
							-	
					-			
<sup>1</sup> Type: C=Ce	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indi	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	/ILRA 147,	148)	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	147, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	F2)		_	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark S				_	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar				_	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 130	•	MI DA 40	)C 400\	31	disatore of hudroub, tie us estation and
Sandy G	Sleyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and vetland hydrology must be present,
	Matrix (S6)		Piedmont Flo Red Parent N					inless disturbed or problematic.
	_ayer (if observed):		Neu Falelii ii	naterial (F2	Z1) (WILK	A 121, 141	1	inless disturbed of problematic.
	Layer (ii observeu).							
Type:	1 \						l a	"" ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
	ches):						Hyaric Sc	oil Present? Yes No
Remarks:								
Hydric soil pre	esent							



Photo 1 Wetland data point WAUC102e\_w1 facing west



Photo 2
Wetland data point WAUC102e\_w1 facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling D						
Applicant/Owner: DOMINION				_ State: VA	Sampling Point: wauc102e_w2			
Investigator(s): Team C	Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Floor								
Subregion (LRR or MLRA): S		38.01184146	Lona: -78.9	9897908	Datum: WGS 1984			
Soil Map Unit Name: Allegheny-Cotaco	fine sandy loam	ns, 1 to 7 percent slop	oes	NWI classific	ation: None			
Are climatic / hydrologic conditions on the	ne site typical fo	r this time of year? Y	es No	(If no, explain in R	emarks.)			
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	present? Yes V No			
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Yes 🗸			·	· · · · · · · · · · · · · · · · · · ·			
Hydric Soil Present?	Yes V	 No	Is the Sampled Area	V V	No			
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO			
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	tors (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 (			getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		✓ Drainage Par				
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li	, ,			
Water Marks (B1)		Presence of Reduced			Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio						
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Iron Deposits (B5)	<u> </u>	Other (Explain in Rer	narks)	<ul><li>Stunted or Stressed Plants (D1)</li><li>Geomorphic Position (D2)</li><li>Shallow Aquitard (D3)</li></ul>				
Inundation Visible on Aerial Image	ery (B7)							
Water-Stained Leaves (B9)	.iy ( <i>Di</i> )			Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutral Test (D5)				
Field Observations:					( )			
	No 🗸	Depth (inches):						
		Depth (inches):						
Saturation Present? Yes		Depth (inches):		lydrology Presen	t? Yes V No			
(includes capillary fringe)  Describe Recorded Data (stream gauge	ie. monitorina w	vell, aerial photos, pre	vious inspections), if ava	ilable:				
Jesonies Hossiasa Zata (ottoani gada)	,e,e	on, aonai priotos, pro	,,					
Remarks:								
Hydrology indicators pesent								

Sampling	Point: wauc102e_	_w2
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00		Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminerat
3				Total Number of Dominant Species Across All Strata: 2 (B)
4.				Operics / toross / till otrata.
		<del></del>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cover		Total % Cover of: Multiply by:  OBL species 0 v.1 = 0
50% of total cover:0	20% of	total cover:	0	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species 90 x 3 = 270
				FACU species5
2				UPL species
3				105 310
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.95
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9				2 - Dominance Test is >50%
s	^			✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:	=	= Total Cover	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
<u></u>	20% 01	total cover:		data in Remarks or on a separate sheet)
TIEID Stratum (Flot Size)	40	.,	E40	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Panicum virgatum	40	Yes	FAC	<u> </u>
2. Echinochloa crus-galli	40	Yes	FAC	Indicators of hydric soil and watland hydrology must
3. Cyperus esculentus	10	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Taraxacum officinale	5	No	FACU	Definitions of Four Vegetation Strata:
5. Paspalum laeve	5	No	FAC	Definitions of Four Vegetation offata.
6. Setaria parviflora	5	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	105 =	Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:52.5	20% of	total cover:	21	Was trades Allows to the constant to 0.00 ft.
Woody Vine Stratum (Plot size: 30				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				noight.
3				
4				Hydrophytic
5				Vegetation
	0 =	Total Cover		Present? Yes No No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			<u> </u>
	,			

Sampling Point: wauc102e\_w2

SOIL

	cription: (Describe t	o me ae				oi contirm	uie absence	or muicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	s Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10 YR 4/3	95	10 YR 3/6	5	C	PL/M	CL	Komarko
	· -				-			
					-			-
<sup>1</sup> Type: C=C	Concentration, D=Depl	etion. RM	l=Reduced Matrix. MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
	Indicators:	,	,			-		ators for Problematic Hydric Soils <sup>3</sup> :
Histoso	I (A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) (N	ILRA 147,		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su				, <u>—</u>	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye				P	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		✓ Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	<del>-</del> 6)		\	ery Shallow Dark Surface (TF12)
Deplete	ed Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		c	Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)			
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 130	•				
	Gleyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M	1aterial (F	21) <b>(MLR</b>	A 127, 147	<b>)</b> un	less disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	nches):						Hydric Soil	Present? Yes No
Remarks:								
Hydric soil pr	resent							



Photo 1
Wetland data point WAUC102e\_w2 facing west

Project/Site: Atlantic Coast Pipeline	City/0	City/County: Augusta County					
Applicant/Owner: DOMINION		State: VA					
	Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): Slight slo							
Subregion (LRR or MLRA): S	Lat: 38.01712688	Long: -78.9940349	Datum: WGS 1984				
Soil Map Unit Name: Fluvaquents, nearly le	vel	NV	VI classification: None				
Are climatic / hydrologic conditions on the si							
Are Vegetation, Soil, or Hydi							
Are Vegetation, Soil, or Hydr							
SUMMARY OF FINDINGS – Attac							
	· · · · · ·						
	Yes No	Is the Sampled Area					
	Yes No	within a Wetland?	/es No				
Wetland Hydrology Present?  Remarks:	Yes No						
HYDROLOGY		0	de la disease (cristiana et la companio di				
Wetland Hydrology Indicators:	Card about all that and A		dary Indicators (minimum of two required)				
Primary Indicators (minimum of one is requ			Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants ( Hydrogen Sulfide Od		<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>				
High Water Table (A2) Saturation (A3)	Oxidized Rhizospher		oss Trim Lines (B16)				
Water Marks (B1)	Presence of Reduce		y-Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction						
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Rei	marks) Sti	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		Ge	eomorphic Position (D2)				
Inundation Visible on Aerial Imagery (E	B7)	Sh	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)			Microtopographic Relief (D4)				
Aquatic Fauna (B13)		FA	C-Neutral Test (D5)				
Field Observations:							
	No Depth (inches):						
	No Depth (inches):  No Depth (inches):		P				
Saturation Present? Yes (includes capillary fringe)	No P Depth (Inches):	wetiand Hydrolo	gy Present? Yes No				
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pre	evious inspections), if available:					
Remarks:							
No wetland hydrology present							

Sampling P	oint: wauc102_	_u1
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20	Absolute	Dominant Ir		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:2 (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:
6				Prevalence Index worksheet:
7	0	Total Cause		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cover total cover:		OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15 )	20 /6 01	total cover		FACW species 0 x 2 = 0
``				FAC species 70 x 3 = 210
1				FACU species 25 x 4 = 100
2				UPL species0 x 5 =0
3				Column Totals: 95 (A) 310 (B)
4.       5.				
6				Prevalence Index = B/A = 3.26  Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				. ,
1. Panicum virgatum	50	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Setaria parviflora	20	Yes	FAC	The disease of hydric cell and wather discussions
3. Oxalis stricta	20	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Solanum americanum	5	No	FACU	Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7	-			height.
8				Continue (Charaka Manaka da atau anda di anaka da atau
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.			_	Herb – All herbaceous (non-woody) plants, regardless
	95	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>47.5</u>		total cover:		Was desides Allowed to design and to the end of the
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				g.m
2			_	
3			_	
4				
5.				Hydrophytic Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover:0		total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
(	,			

Profile Des	cription: (Describe	to the dept				or confirm	the absence	e of indicators.)	
Depth	Matrix		Redo	K Feature	s	. 2	_	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remar	rks
0-12	10 YR 4/4	100					S		
12-18	10 YR 6/4	100					S		
					-	· ——	-	_	
		· ——						_	
								_	
					-			_	
								_	
1- 0.0						<del> </del>	21		
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	s=Maskec	Sand Gr	ains.		PL=Pore Lining, M=Ma	
-	Indicators:						ina	icators for Problemation	-
Histoso			Dark Surface					2 cm Muck (A10) (MLR	
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A	(16)
	listic (A3)		Thin Dark Su		•	147, 148)		(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Se	oils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)	
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)			Very Shallow Dark Sur	, ,
Deplete	ed Below Dark Surfac	e (A11)	Depleted Dar	k Surface	(F7)			Other (Explain in Rema	arks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)				
Sandy I	Mucky Mineral (S1) (I	_RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,			
	A 147, 148)		MLRA 13	5)					
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (	MLRA 13	86, 122)	ıl <sup>ɛ</sup>	ndicators of hydrophytic	vegetation and
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>(8)</b>	wetland hydrology must	be present,
	d Matrix (S6)		Red Parent N					unless disturbed or prob	
	Layer (if observed):			,			ĺ	· · · ·	
Type:	, ,								
	-1>						111-1-0-	-!! D10 - V	N. V
	nches):						Hydric So	oil Present? Yes	No
Remarks:									
lo hydric soi	I present								



Photo 1 Upland data point WAUC102\_u1 facing east



Photo 2
Upland data point WAUC102\_u1 facing northwest

Project/Site: Atlantic Coast Pipeline		City/0	County: Augusta County		Sampling Date: 10/27/2015		
				State: VA	Sampling Point: wauc102_u2		
Investigator(s): Team C	PLSS in this area						
Landform (hillslope, terrace, etc.): Hill							
Subregion (LRR or MLRA): S					Datum: WGS 1984		
Soil Map Unit Name: Allegheny-Cotac	o fine sandy loa	ms, 1 to 7 percent slo	pes	NWI classific	eation: None		
Are climatic / hydrologic conditions on							
Are Vegetation, Soil, or	r Hydrology	significantly distu	rbed? Are "Normal	Circumstances" p	present? Yes V No		
Are Vegetation, Soil, oi							
SUMMARY OF FINDINGS – A							
Hudronhutia Vagatatian Brocant?	Voo	No 🗸			<del>-</del>		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	No 🗸	Is the Sampled Area		🗸		
Wetland Hydrology Present?	Yes		within a Wetland?	Yes	No		
Remarks:			l				
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is	s required; chec	k all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)		True Aquatic Plants	(B14)	<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>			
High Water Table (A2)		Hydrogen Sulfide Od					
Saturation (A3)			• , ,	Moss Trim Li	ines (B16)		
Water Marks (B1)		Presence of Reduce		Dry-Season Water Table (C2)			
Sediment Deposits (B2)	_	Recent Iron Reduction	on in Tilled Soils (C6)	s (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)		Thin Muck Surface (					
Algal Mat or Crust (B4)	_	Other (Explain in Re	marks)		tressed Plants (D1)		
Iron Deposits (B5)					Position (D2)		
Inundation Visible on Aerial Imag	jery (B7)			Shallow Aqui			
Water-Stained Leaves (B9)					aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:	.,						
		Depth (inches):					
		Depth (inches):					
Saturation Present? Yes _ (includes capillary fringe)	No	_ Depth (inches):	Wetland F	lydrology Presen	nt? Yes No		
Describe Recorded Data (stream gau	age, monitoring v	well, aerial photos, pre	evious inspections), if ava	ilable:			
Remarks: No hydrology indicators present							
No flydrology indicators present							

		Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30		Species?		
l					Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2.					Total Number of Deminant
3					Total Number of Dominant Species Across All Strata:  2 (B)
l					
5					Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/E
S					
7					Prevalence Index worksheet:
			= Total Cove		Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species X I =
Sapling/Shrub Stratum (Plot size	ze:)				FACVV species X 2 = 100
•					FAC species X3 = 240
					X 4 =
s					UPL species
k					Column Totals: (A) 429 (B)
j					Prevalence Index = B/A =3.48
S					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
3					2 - Dominance Test is >50%
9					3 - Prevalence Index is ≤3.0¹
	•		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supportin
	50% of total cover: 0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)	60	V	E40	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Setaria parviflora		30	Yes	FAC	
2. Apocynum androsaemifolium	<u> </u>	15	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Taraxacum officinale		10	No No	FACU FACU	be present, unless disturbed or problematic.
Andropogon virginicus  Oxalis stricta		5	No No		Definitions of Four Vegetation Strata:
		3	No No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o
<sub>S.</sub> Erigeron strigosus 7 Solidago rugosa		3	No No	FAC	more in diameter at breast height (DBH), regardless o
·				TAC	height.
3					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		126			Herb – All herbaceous (non-woody) plants, regardless
	50% of total cover: 63		= Total Cover total cover:		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size	20	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
	· · · · · · · · · · · · · · · · · · ·				height.
2					
_					
т 5.					Hydrophytic Vegetation
		0	= Total Cove	,	Present? Yes No
J				0	
J	50% of total cover: 0	20% of	total cover:	U	

Sampling Point: wauc102\_u2

	cription: (Describe t	o the depth				or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redo	x Features	3 Tura - 1	Loc <sup>2</sup>	Tandonia		D	1	
(inches) 0-18	Color (moist) 10 YR 4/4	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	LOC	<u>Texture</u> S		Remar	KS	
U-10	10 11 4/4										
					-						
					-						
1Tuno: C C	Concentration D. Donl	otion DM D	advaced Matrix MG	Mookod	Cond Cr		<sup>2</sup> l section: D	l Doro Lin	ina M Mat	wise	
	concentration, D=Deplement Indicators:	elion, Rivi=R	educed Mairix, MS	s=iviaskeu	Sand Gr	airis.	<sup>2</sup> Location: P		roblematic		oile <sup>3</sup> :
-			D 10 (	(07)						•	Jiis .
Histosol			Dark Surface		(00) (1		· · · · · · · · · · · · · · · · · · ·		(A10) (MLR	•	
	pipedon (A2)		Polyvalue Be		. , .		148) C		e Redox (A	16)	
	istic (A3)		Thin Dark Su	, ,	•	47, 148)	_	(MLRA 1			
	en Sulfide (A4)		Loamy Gleye		F2)		P		oodplain So	oils (F19)	
	d Layers (A5)		Depleted Ma					(MLRA 1			
	uck (A10) (LRR N)		Redox Dark S						w Dark Surf		)
	d Below Dark Surface	(A11)	Depleted Dar				c	other (Expla	ain in Rema	rks)	
	ark Surface (A12)		Redox Depre								
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,					
	A 147, 148)		MLRA 13	•							
	Gleyed Matrix (S4)		Umbric Surfa						ydrophytic	-	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>8)</b> we	etland hydro	ology must	be present	,
Stripped	d Matrix (S6)		Red Parent N	Naterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	less disturb	oed or probl	ematic.	
Restrictive	Layer (if observed):										
Type:											
	iches):		<del>_</del>				Hydric Soil	Present?	Yes	No	~
Remarks:							,				
	Luuraant										
lo hydric soi	I present										



Photo 1 Upland data point WAUC102\_u2 facing east



Photo 2
Upland data point WAUC102\_u2 facing south

Project/Site: Atlantic Coast Pipeline	City/County: Augusta C	county	Sampling Date: 10/29/2015	
Applicant/Owner: DOMINION			Sampling Point: wauc103f_w	
··	nge: No PLSS in this area			
Landform (hillslope, terrace, etc.): Drainage system				
Subregion (LRR or MLRA): S	at: 37.99449905	a78.97357256	Datum: WGS 1984	
Soil Map Unit Name: Buchanan fine sandy loam, 0 t	to 2 percent slopes	J	Datum	
Are climatic / hydrologic conditions on the site typical	•	<del></del> -	,	
Are Vegetation, Soil, or Hydrology _				
Are Vegetation, Soil, or Hydrology _	naturally problematic? (If nee	eded, explain any answer	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site	map showing sampling point lo	ocations, transects	, important features, etc.	
Hydrophytic Vegetation Present? Yes	No Is the Sampled			
Hydric Soil Present? Yes	, Is the Sampleu	the Sampled Area thin a Wetland? Yes ✔ No		
	within a Wetlan	d? Yes	NO	
Remarks:				
PFO wetland associated with a pond that is located	outside of the corridor. An ephemeral stre	am dies out in the wetlan	d.	
HADBOLOGA				
HYDROLOGY Wetland Hydrology Indicators		Cacandan India	toro (minimum of two required)	
Wetland Hydrology Indicators:	and all that apply)	·	tors (minimum of two required)	
Primary Indicators (minimum of one is required; ch  V Surface Water (A1)	True Aquatic Plants (B14)	Surface Soil (	petated Concave Surface (B8)	
	Hydrogen Sulfide Odor (C1)	<u>✓</u> Drainage Pat		
	<ul><li>_ Nydrogen Sumac Sast (S1)</li><li>_ Oxidized Rhizospheres on Living Roots</li></ul>			
	Presence of Reduced Iron (C4)		Water Table (C2)	
	Recent Iron Reduction in Tilled Soils (C	· ·		
Drift Deposits (B3)	Thin Muck Surface (C7)		sible on Aerial Imagery (C9)	
	Other (Explain in Remarks)		ressed Plants (D1)	
Iron Deposits (B5)		✓ Geomorphic	Position (D2)	
Inundation Visible on Aerial Imagery (B7)		Shallow Aqui	tard (D3)	
Water-Stained Leaves (B9)		Microtopogra	phic Relief (D4)	
Aquatic Fauna (B13)		FAC-Neutral	Test (D5)	
Field Observations:	2			
<u> </u>	Depth (inches):2			
	Depth (inches):			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wet	tland Hydrology Presen	t? Yes No	
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspections)	), if available:		
Domoska				
Remarks:				

Sampling Point: wauc
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00	Absolute	Dominant In	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)  1. Acer rubrum	% Cover 30	Species? _ Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
2. Quercus alba	20	Yes	FACU	That Ald OBE, I AOW, OI I AO.
3. Quercus michauxii	20	Yes	FACW	Total Number of Dominant Species Across All Strate: 7 (B)
4. quercus coccinea	10	No		Species Across All Strata: (B)
···				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 71.42857142 (A/B)
6				Drawalan as Inday wantahaat
7				Prevalence Index worksheet:
	80	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 40	20% of	total cover:_	16	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15				FACW species 20
1 Lindera benzoin	7	Yes	FAC	FAC species43 x 3 =129
2 Rubus argutus	3	Yes	FACU	FACU species 23 x 4 = 92
·				UPL species
3				86 261
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =3.03
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
•				2 - Dominance Test is >50%
9	10	Tatal Cause		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 5		= Total Cover total cover:_	2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 01	total cover		data in Remarks or on a separate sheet)
ricib citatum (Flot size)	5	V	E40	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Smilax rotundifolia		Yes	FAC	
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Definitions of Four Vegetation Strata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	5	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5	20% of	total cover:_	1	Was devices. All was deviced as asset on the an 2 00 ft in
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1. Toxicodendron radicans	1	Yes	FAC	noight.
2				
3				
4				Hydrophytic
5				Vegetation
	1	= Total Cove		Present? Yes No No
50% of total cover: 0.5	20% of	total cover:_	0.2	
Remarks: (Include photo numbers here or on a separate si	heet.)			

Depth	Matrix			x Features	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10 YR 3/2	100					CL	
6-18	5Y 4/3	93	5 YR 4/6	2	С	PL	С	
		<del></del>	2.5 Y 5/6	5	С	M		
					-			
					-			
					-			
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion. RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil			Troubou mann, me	maonoa	<u> </u>			ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(\$7)				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		e (S8) <b>(N</b>	II RΔ 147		Coast Prairie Redox (A16)
	istic (A3)		Tolyvalde Be				. +0,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, i=0j	P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		-,		'	(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark S		6)		\/	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	ark Surface (A12)	( ,	Redox Depre					(=-4
	/ucky Mineral (S1) <b>(L</b>	_RR N.	Iron-Mangane			LRR N.		
	A 147, 148)		MLRA 130		/o (/ <b>(</b>	,		
	Gleyed Matrix (S4)		Umbric Surfa	-	MLRA 13	6. 122)	<sup>3</sup> Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					lless disturbed or problematic.
	Layer (if observed):			,	, <b>,</b>		1	
Type:	,							
	ahaa).						Usalvia Cail	Present? Yes V No
Depth (in	cnes):						Hydric Soil	Present? Yes V No
Remarks:								



Photo 1
Wetland data point WAUC103f\_w facing west



Photo 2
Wetland data point WAUC103f\_w facing south

Project/Site: Atlantic Coast Pi	peline	(	City/County: Augusta County		Sampling Date: 10/29/2015	
Applicant/Owner: DOMINION		Sampling Point: wauc103_u				
Investigator(s): Team C	PLSS in this area					
Landform (hillslope, terrace, e						
Subragion (LDD or MLDA): S	10.).	27.99467956	Long: -78.	9740201	Glope (70)	
Ocil Mara Hair Nama Allegher	nv-Cotaco cobbly	fine sandy loams 7 to 1	5 percent slopes	NA// -110	Datum: WGS 1984	
Are climatic / hydrologic condi						
Are Vegetation, Soil	, or Hydrolo	gy significantly	disturbed? Are "Normal	Circumstances" p	resent? Yes No	
Are Vegetation, Soil	, or Hydrolo	gynaturally pro	blematic? (If needed, e	explain any answer	s in Remarks.)	
SUMMARY OF FINDIN	IGS – Attach	site map showing	sampling point location	ons, transects,	important features, etc.	
Hydrophytic Vegetation Pres	cont? Voc	No_ 🗸				
Hydric Soil Present?		No V	Is the Sampled Area	.,	🗸	
Wetland Hydrology Present?		No	within a Wetland?	Yes	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat					ors (minimum of two required)	
Primary Indicators (minimum	ı of one is require			Surface Soil (	` '	
Surface Water (A1)		True Aquatic Pla			etated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfid		Drainage Patt		
Saturation (A3)			spheres on Living Roots (C3)	Moss Trim Lir		
Water Marks (B1)		Presence of Re		Dry-Season Water Table (C2)		
Sediment Deposits (B2)			duction in Tilled Soils (C6)	Crayfish Burro		
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surfa Other (Explain in			sible on Aerial Imagery (C9) ressed Plants (D1)	
Iron Deposits (B5)		Outer (Explain)	ii Romanoj	Geomorphic F		
Inundation Visible on Ae	erial Imagery (B7)			Shallow Aquit		
Water-Stained Leaves (					phic Relief (D4)	
Aquatic Fauna (B13)	-,			FAC-Neutral	, ,	
Field Observations:					. ,	
Surface Water Present?	Yes N	Depth (inches):	:			
Water Table Present?		Depth (inches):				
Saturation Present?		Depth (inches):		lydrology Present	t? Yes No	
(includes capillary fringe)	room goligo mon	itaring wall parial photo	s, previous inspections), if ava	ilabla		
No hydrology indicators prese		itoring well, aerial photos	s, previous inspections), ii ava	illable.		
Remarks:						

Sampling	Point: wauc103_	u
Sambling	Point: wado 100_	٠

00	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus rubra	25	Yes	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Quercus alba	20	Yes	FACU	
3. Carya tomentosa	10	No		Total Number of Dominant
∆ Quercus stellata	10	No	UPL	Species Across All Strata: (B)
Th				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 28.57142857 (A/B)
6				
7.				Prevalence Index worksheet:
	55	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 32.5		total cover:	13	OBL species $0 \times 1 = 0$
15	20 /0 01	total cover		FACW species 0 x 2 = 0
Sapiing/Shrub Stratum (Plot size:)	40	\/	E4011	45
1. Quercus rubra	10	Yes	FACU	FAC species $\frac{15}{68}$ x 3 = $\frac{45}{272}$
2. Lindera benzoin	10	Yes	FAC	FACU species
3. Acer rubrum	5	Yes	FAC	UPL species10
4.				Column Totals:93 (A)367 (B)
5				Prevalence Index = B/A =3.94
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
•				2 - Dominance Test is >50%
9	25			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover	5	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 12.5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				
1. Vaccinium angustifolium	10	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Potentilla simplex	3	Yes	FACU	
		-		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
		-		noight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	13	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 6.5		total cover:		of size, and woody plants loss than 6.25 it tall.
0070 01 (0001 00701:	20 /6 01	total cover		Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
·· <del>·</del>				Hydrophytic
5				Vegetation
		<ul><li>Total Cover</li></ul>		Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Depth	Matrix		Redox Features	. 2	_	
inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	2.5 YR 5/6	100			SL	
	-	· —— —				-
		· — — —				
		·				
	-	· <del></del>				-
	-					
	-	· — — —		<del></del> -	2	-
		letion, RM=Re	educed Matrix, MS=Masked Sand Grai	ns.		L=Pore Lining, M=Matrix.
ydric Soil	Indicators:				Indica	ators for Problematic Hydric Soils <sup>3</sup> :
_ Histoso	I (A1)		Dark Surface (S7)		2	cm Muck (A10) (MLRA 147)
_ Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (ML	.RA 147, 1	<b>48)</b> C	oast Prairie Redox (A16)
_ Black H	istic (A3)		Thin Dark Surface (S9) (MLRA 14	7, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		P	iedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)
_ 2 cm M	uck (A10) (LRR N)		Redox Dark Surface (F6)		V	ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)			ther (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)			
	Mucky Mineral (S1) (L	_RR N,	Iron-Manganese Masses (F12) (L	RR N,		
	A 147, 148)	•	MLRA 136)	·		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136	122)	<sup>3</sup> Ind	icators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (I			tland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA			ess disturbed or problematic.
	Layer (if observed):			,,	4111	oce dictarged of proprentiation
	_ayo. ( oboo. rou).					
Type:			<del>_</del>			
Depth (in	ches):		_		Hydric Soil	Present? Yes No
emarks:						



Photo 1 Upland data point WAUC103\_u facing west



Photo 2 Upland data point WAUC103\_u facing north

Project/Site: Atlantic Coast Pip	eline	City/C	ounty: Augusta County	;	Sampling Date: 4/9/2016
Applicant/Owner: Dominion					Sampling Point: waua401f_w
Investigator(s): RP, GB		Section	on, Township, Range <sup>, No</sup>		
Landform (hillslope, terrace, etc					Slone (%)· 1
Subregion (LRR or MLRA): S	J.)	at: 37.97908279	Jana: -78.9	96668823	Glope (70)
Soil Map Unit Name: Purdy sill		_at:	Long	NA/I -1'C	Datum: <u></u> Datum:
•					
Are climatic / hydrologic conditi		-			
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances" pre	esent? Yes No
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answers	in Remarks.)
SUMMARY OF FINDING	GS – Attach site	map showing sam	pling point location	ons, transects,	important features, etc.
Hudrophytic Vogetation Brook	ont? You I	/ No			
Hydrophytic Vegetation Present?	γιι: res <u>•</u> Υρς •	No	Is the Sampled Area	4	
Wetland Hydrology Present?		No	within a Wetland?	Yes	
Remarks:					
Wetiand data point located in	a seasonally llooded	to seasonally saturated P	TO Welland located liftic	icalized depression.	NCWAM key is basin system.
HYDROLOGY					
Wetland Hydrology Indicato	ors:			Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum	of one is required; ch	neck all that apply)		Surface Soil C	racks (B6)
Surface Water (A1)	_	True Aquatic Plants (	B14)	Sparsely Vege	etated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odd		Drainage Patte	erns (B10)
Saturation (A3)		Oxidized Rhizosphere		Moss Trim Lin	
Water Marks (B1)		Presence of Reduced			ater Table (C2)
Sediment Deposits (B2)	=	Recent Iron Reductio		Crayfish Burro	
Drift Deposits (B3)	<del>-</del>	Thin Muck Surface (C			ible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Ren	narks)		essed Plants (D1)
Iron Deposits (B5)	rial Imagent (D7)			<ul><li>✓ Geomorphic P</li><li>✓ Shallow Aquita</li></ul>	` '
<ul><li>Inundation Visible on Aer</li><li>Water-Stained Leaves (E</li></ul>					hic Relief (D4)
Aquatic Fauna (B13)	19)			FAC-Neutral T	` '
Field Observations:				17.0 140414111	
Surface Water Present?	Yes No	Depth (inches):			
Water Table Present?			14		
Saturation Present?			I1 Wetland H	lydrology Present	? Yes V No
(includes capillary fringe)					. 103
Describe Recorded Data (stre	am gauge, monitorin	ng well, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					
seasonally flooded to seasona	ally saturated.				

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

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: waua401f_w
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)  1. Nyssa sylvatica	% Cover 30	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:5 (A)
2. Acer rubrum	30	Yes	FAC	That Ale OBE, I AGW, GIT AG.
				Total Number of Dominant Species Agrees All Strate: 6 (B)
3	-			Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 83.33333333 (A/B)
6				Prevalence Index worksheet:
7	60			Total % Cover of: Multiply by:
20		= Total Cove	er 12	OBL species 5 x 1 = 5
50% of total cover: 30 15	20% of	total cover:	12	FACW species
Sapling/Shrub Stratum (Plot size:)  1 Viburnum prunifolium	12	Yes	FACU	FAC species x 2 = FAC species 77
a Acer rubrum	5	Yes	FAC	FACU species 12 x 4 = 48
<u>-</u>		· <del></del>		UPL species0 x 5 =0
3				Column Totals: 94 (A) 284 (B)
4		·		(b)
5		·		Prevalence Index = B/A =3.02
6		·		Hydrophytic Vegetation Indicators:
7	-			1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	17	= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 8.5	20% of	total cover:	3.4	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				•
1. Carex oligosperma	5	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				1
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions of Four Vegetation Strata:
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.		·		more in diameter at breast height (DBH), regardless of height.
		· ——		neight.
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.
10				m) tan.
11	5	· <del></del>		Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 2.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
0070 01 10101 00701.	20% of	total cover:	1	Woody vine – All woody vines greater than 3.28 ft in
(1 lot size:	10	Voo	FAC	height.
1. Smilax rotundifolia	12	Yes	FAC	
2				
3				
4				Hydrophytic
5				Vegetation
	12	= Total Cove	er	Present? Yes No
50% of total cover: 6	20% of	total cover:	2.4	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remarks	
0-4	10YR 3/1	100					SIL			
4-9	10YR 4/1	100								
			10YR 5/8	10			C			
9-18	10YR 5/2	90	1018 5/8	10	С	IVI				
	-									
								-		
	-									
<sup>1</sup> Type: C=C	oncentration D=Der	oletion RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains	<sup>2</sup> Location: P	I =Pore I in	ing, M=Matrix.	
Hydric Soil		5100011, 1111	in reduced matrix, me	-maonoa c	Jana Ore				roblematic Hy	
Histosol			Dark Surface	(\$7)					(A10) <b>(MLRA 1</b>	
	pipedon (A2)		Polyvalue Be		(S8) <b>(N</b>	II DA 147			e Redox (A16)	•
	istic (A3)		Thin Dark Su		. , .		1 <del>-1</del> 0) (	MLRA 14)	, ,	
	en Sulfide (A4)		Loamy Gleye			-1, 140)	г.	•	oodplain Soils	(F10)
	d Layers (A5)		Loamy Gleye  ✓ Depleted Mat		-/			MLRA 1:		(i 1 <i>3)</i>
	uck (A10) <b>(LRR N)</b>		Redox Dark S		١		1.		w Dark Surface	(TF12)
	d Below Dark Surfac	۲۵ (Δ11)	Redox Dark s						ain in Remarks	
	ark Surface (A12)	~ (^11)	Redox Depre	•	,			miei (Explo	ani ili ixelliaiKS	,
	Mucky Mineral (S1) <b>(</b>	I DD N	Iron-Mangane			DD N				
	Mucky Milleral (31) ( A 147, 148)	LKK N,	MLRA 136		(F12) <b>(</b> 1	LKK N,				
	Gleyed Matrix (S4)		Umbric Surfa	•	I D A 12	6 122\	3lpo	licatora of h	ydrophytic veg	rotation and
	Redox (S5)		Piedmont Flo						ology must be	
-	d Matrix (S6)		Red Parent M						ped or problem	
	Layer (if observed)		Red Falent iv	ialeriai (FZ	i) (IVILK	A 127, 147	) un	iess distuit	bea or problem	alic.
Type: cla		•								
Depth (in	ches): 4		<del></del>				Hydric Soil	Present?	Yes	No
Remarks:										



**Photo 1**Wetland data point WAUA401f\_w facing northeast



Photo 2
Wetland data point WAUA401f\_w facing west

Project/Site: Atlantic Coast Pi	peline		City/C	County: Augusta County		Sampling Date: 4/9/2016		
Applicant/Owner: Dominion						Sampling Point: waua401_u		
Investigator(s): RP, GB				on, Township, Range: No	_			
Landform (hillslope, terrace, e								
						Datum: WGS 1984		
Subregion (LRR of MLRA): 9	 It loam	_ Lat:						
Soil Map Unit Name: Purdy si								
Are climatic / hydrologic condi	tions on the site typ	oical for this tir	me of year? \	res No	(If no, explain in R	emarks.)		
Are Vegetation, Soil	, or Hydrolog	y sign	ificantly distur	rbed? Are "Normal	Circumstances" p	present? Yes No		
Are Vegetation, Soil	, or Hydrolog	y natu	rally problem	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDIN	GS – Attach s	ite map sh	owing san	npling point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Pres	ent? Ves	No	~					
Hydric Soil Present?	Yes	No	<u> </u>	Is the Sampled Area	.,	🗸		
Wetland Hydrology Present?	Yes	No_	<u> </u>	within a Wetland?	Yes	No		
Remarks:								
Upland data point taken abov								
HYDROLOGY								
Wetland Hydrology Indicat	ors:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum	of one is required:				Surface Soil	, ,		
Surface Water (A1)		(B14)	Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)			en Sulfide Od		=	Drainage Patterns (B10)		
Saturation (A3)				res on Living Roots (C3)		ss Trim Lines (B16)		
Water Marks (B1)			ce of Reduce			Water Table (C2)		
Sediment Deposits (B2)				on in Tilled Soils (C6)	Crayfish Bur			
Drift Deposits (B3) Algal Mat or Crust (B4)			uck Surface (( Explain in Rei			isible on Aerial Imagery (C9) tressed Plants (D1)		
Iron Deposits (B5)		Other (	LAPIAIII III INGI	marks)	· <del></del>	Position (D2)		
Inundation Visible on Ae	erial Imagery (B7)				Shallow Aqu			
Water-Stained Leaves (I	• • • •					aphic Relief (D4)		
Aquatic Fauna (B13)	,				FAC-Neutral	• • • •		
Field Observations:								
Surface Water Present?	Yes No	<b>✓</b> Depth	(inches):					
Water Table Present?	Yes No							
Saturation Present?	Yes No				lydrology Preser	nt? Yes No		
(includes capillary fringe)			:-!		ilahla.			
Describe Recorded Data (str	eam gauge, monito	oring well, aer	iai priotos, pre	evious inspections), if ava	illable:			
Remarks:								
no hydrology indicators prese	ent							

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

\_)

50% of total cover: \_\_\_ 15

50% of total cover: 22.5

50% of total cover:

50% of total cover: \_ 2.5

0 \_\_ = Total Cover 0 20% of total cover: 0

30

Tree Stratum (Plot size: \_

Sapling/Shrub Stratum (Plot size:\_

1. Quercus rubra

2. Quercus alba

4. Acer rubrum

1. Acer rubrum

2. Nyssa sylvatica

3. Amelanchier canadensis

Herb Stratum (Plot size: \_\_\_

1. Smilax rotundifolia

4. Gaylussacia baccata

5. Sassafras albidum

6. Kalmia latifolia

3. quercus coccinea

nmes of	plants.		Sampling Point: waua401_u	
Absolute	Dominant	ndicator	Dominance Test worksheet:	_
% Cover 27		Status FACU	Number of Dominant Species That Are OBL, FACW, or FAC:  3 (A)	)
20	Yes	FACU		
15	Yes		Total Number of Dominant Species Across All Strata:  6 (B)	١
2	No	FAC	Opecies Across Air citata.	,
			Percent of Dominant Species That Are OBL, FACW, or FAC:  50  (A/	/B)
			Prevalence Index worksheet:	
64	= Total Cove	er	Total % Cover of: Multiply by:	
20% of	total cover:	12.8	OBL species0 x 1 =0	
			FACW species x 2 =	
25	Yes	FAC	FAC species46	
10	Yes	FAC	FACU species53	
4	No	FAC	UPL species0 x 5 =0	
2	No	FACU	Column Totals:99	3)
2	No	FACU	0.50	
2	No	FACU	Prevalence Index = B/A =3.53	
			Hydrophytic Vegetation Indicators:	
			1 - Rapid Test for Hydrophytic Vegetation	
			2 - Dominance Test is >50%	
45			3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	= Total Cove total cover:	er 9	4 - Morphological Adaptations <sup>1</sup> (Provide support	ing
20% 01	total cover.		data in Remarks or on a separate sheet)	
			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	:
			Definitions of Four Vegetation Strata:	
			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height.	
			Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
0	= Total Cove	 er	<b>Herb</b> – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.	SS
20% of	total cover:_	0	Woody vine – All woody vines greater than 3.28 ft in height.	1
5	Yes	FAC	Hydrophytic	
	= Total Cover:	er 1	Vegetation Present?  Yes No	

Remarks: (Include photo numbers here or on a separate sheet.)

Woody Vine Stratum (Plot size: \_\_\_\_\_\_)

Sampling Point: waua401\_u

Depth	scription: (Describe Matrix	•		x Feature				•
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-1	10YR 4/4	100					SIL	
1-6	10YR 5/4	100			_		SIL	gravel present
6-18	10YR 6/4	100					CL	
0-10	1018 0/4							
								<del>-</del> -
	_							
		_						
							-	
T 0 (		- Indian DM	De desert Matrice M				21	Di Bara Hatan M Martin
	Concentration, D=De Indicators:	pletion, RM=	Reduced Matrix, MS	s=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :
-			Daule Courteres	(07)				· · · · · · · · · · · · · · · · · · ·
Histoso			Dark Surface Polyvalue Be		co (SS) <b>(N</b>	II D A 1 <i>1</i> 7		2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
	Epipedon (A2) Histic (A3)		Polyvalue Be				140)	(MLRA 147, 148)
	gen Sulfide (A4)		Loamy Gleye	. ,	•	, 1 <del>7</del> 0 <i>)</i>		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mar		,		_	(MLRA 136, 147)
	luck (A10) <b>(LRR N)</b>		Redox Dark		<del>-</del> 6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)	Depleted Dar				<u> </u>	Other (Explain in Remarks)
Thick D	Dark Surface (A12)		Redox Depre					
Sandy	Mucky Mineral (S1)	(LRR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,		
	RA 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	ed Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> ι	unless disturbed or problematic.
Restrictive	Layer (if observed	):						
Type: n	one							,
Depth (ii	nches):						Hydric Sc	oil Present? Yes No
Remarks:								
ydric soil no	ot present							



Photo 1 Upland data point WAUA401\_u facing southwest



Photo 2
Upland data point WAUA401\_u facing southeast

Project/Site: Atlantic Coast Pip	oeline		City/C	county: Augusta		Sampling Date: 5/2/2015
Applicant/Owner: Dominion						Sampling Point: waua050f_w
Investigator(s): GB, SA				on, Township, Range:		
Landform (hillslope, terrace, et						
Subragion (LDD or MLDA): S	o.,	Lot	37.97421339	Long:	78.96577504	Dotum: WGS 1984
Ocil Mara Hair Nama Alleghen	v-Cotaco fine sa	Lai. ndv loan	ns 1 to 7 percent slor	Long nes	NA/I -1	Datum: WGS 1984
Are climatic / hydrologic condit						
					mal Circumstances	" present? Yes No
Are Vegetation, Soil	, or Hydrolo	ду	naturally problema	atic? (If neede	d, explain any ansv	vers in Remarks.)
SUMMARY OF FINDIN	GS – Attach	site m	ap showing san	npling point loca	tions, transec	ts, important features, etc.
Hydrophytic Vegetation Pres	ent? Vec	~	No			
Hydric Soil Present?	Yes	<u></u>	 No	Is the Sampled Are		
Wetland Hydrology Present?			No	within a Wetland?	Yes	No
Remarks:						
			n for a saturated to se	emi-permanently flood	ed PFO wetland, fe	eature may have been a pond
decades ago, hydrology chan	ges from eage to	center.				
HYDROLOGY						
Wetland Hydrology Indicat						cators (minimum of two required)
Primary Indicators (minimum	of one is require				Surface So	, ,
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (						
High Water Table (A2)  Hydrogen Sulfide Odor (C1)  Drainage Patterns (B10)						
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)						
Water Marks (B1)			Presence of Reduced			n Water Table (C2)
Sediment Deposits (B2)			Recent Iron Reductio			urrows (C8)
Drift Deposits (B3)			Thin Muck Surface (C			Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		—	Other (Explain in Rer	narks)		Stressed Plants (D1)
Iron Deposits (B5)						ic Position (D2)
Inundation Visible on Ae						quitard (D3)
Water-Stained Leaves (F	39)					graphic Relief (D4)
Aquatic Fauna (B13)					FAC-Neuti	rai l'est (D5)
Field Observations:	Vac N		Donth (inches)			
Surface Water Present?			Depth (inches):	7		
Water Table Present?				5		
Saturation Present? (includes capillary fringe)	Yes N	o	Depth (inches):	Wetian	d Hydrology Pres	ent? Yes No
Describe Recorded Data (str	eam gauge, mor	itoring w	ell, aerial photos, pre	vious inspections), if a	available:	
Remarks:						
Standing water present closer	r to center of der	ression	data collected at edg	e of feature		
Otaliang water present closes	to center of dep	10001011,	data concoled at eag	c of feature.		

/EGETATION (Four Strata) – Use scientific na	imes of	piants.		Sampling Point: waua050f_w
	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30)  1. Quercus palustris	% Cover 25	Species? Yes	Status FACW	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2. Acer rubrum	10	Yes	FAC	
3. Nyssa sylvatica	7	No	FAC	Total Number of Dominant Species Across All Strata:  8 (B)
0				Species Across Air Strata. (B)
				Percent of Dominant Species That Are ORL FACW or FAC: 75 (A/R)
5				That Are OBL, FACW, or FAC:(A/B)
0				Prevalence Index worksheet:
<i>1</i>	42			Total % Cover of: Multiply by:
50% of total cover: 21		= Total Cove total cover:_	r 8.4	OBL species 0 x 1 = 0
15	20 /6 01	total cover		FACW species 33 x 2 = 66
Sapling/Shrub Stratum (Plot size:)  1. Acer rubrum	10	Yes	FAC	FAC species 38 x 3 = 114
2. Quercus palustris	8	Yes	FACW	FACU species 9 x 4 = 36
2. Nyssa sylvatica	7	Yes	FAC	UPL species0 x 5 =0
3. 119000 011101100	•			Column Totals: 80 (A) 216 (B)
4				Column Totals (A) (b)
5				Prevalence Index = B/A = 2.7
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
40.5		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 12.5	20% of	total cover:_	5	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Ranunculus acris	4	Yes	FAC	1 Toblemation yarephytic vegetation (Explain)
2. Oxalis corniculata	4	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Poa annua	3	Yes	FACU	be present, unless disturbed or problematic.
4. Luzula multiflora	2	No	FACU	Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				One the state of t
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	13	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 6.5		total cover:_		
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				····g····
2.				
3				
4				Hadran bada
5				Hydrophytic Vegetation
·	0	= Total Cove		Present? Yes No
50% of total cover:			^	
50% of total cover:0  Remarks: (Include photo numbers here or on a separate sh	20% of	= Total Cove total cover:_	^	Present? Yes No No

Profile Desc	ription: (Describe t	o the dep	oth needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	K Feature:	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	<u>Remarks</u>
0-6	10YR 2/2	100					SCL	
6-18	10YR 5/2	90	10YR 5/6	10	С	PL/M	CL	
					-			
1 <sub>T</sub> C. C.		DM	De duce d Metric MC				21	N. Deseliaine M. Metric
Hydric Soil I		etion, Rivi	=Reduced Matrix, MS	=iviasked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.  ators for Problematic Hydric Soils <sup>3</sup> :
-			Davis Confess	(07)				· ·
Histosol	(A1) pipedon (A2)		Dark Surface		oo (CO) <b>(B</b>	AL DA 447		2 cm Muck (A10) (MLRA 147)
			Polyvalue Be Thin Dark Su				140) (	Coast Prairie Redox (A16) (MLRA 147, 148)
Black Hi	n Sulfide (A4)		Loamy Gleye			147, 140)		Piedmont Floodplain Soils (F19)
	l Layers (A5)				r <i>z)</i>			(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b>		Redox Dark S		·6)		\	/ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar		•			Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre					,
	lucky Mineral (S1) (L	RR N,	Iron-Mangane			LRR N,		
MLRA	A 147, 148)		MLRA 136	6)				
	lleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M	1aterial (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> un	nless disturbed or problematic.
	ayer (if observed):							
Type: no								
Depth (inc	ches):						Hydric Soi	I Present? Yes No
Remarks:								
ı								



**Photo 1**Wetland data point WAUA050f\_w facing northeast



**Photo 2**Wetland data point WAUA050f\_w facing northwest

Project/Site: Atlantic Coast Pip	peline	City/C	County: Augusta		Sampling Date: 5/2/2015	
Applicant/Owner: Dominion					Sampling Point: waua050_u	
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, et						
Subregion (LRR of MLRA):	v-Cotaco fine sandy	loams 1 to 7 percent slor	Long:	NA// 1 'C'	Datum: WGS 1984 Pation: None	
Are climatic / hydrologic condit		•				
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances" p	present? Yes No	
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If needed, e	explain any answe	rs in Remarks.)	
SUMMARY OF FINDIN	GS – Attach site	e map showing sam	pling point location	ons, transects	, important features, etc.	
Lludraphytic Variation Dres	ent? Vee	No. 4				
Hydrophytic Vegetation President Hydric Soil Present?		No No	Is the Sampled Area			
Wetland Hydrology Present?	Yes	No	within a Wetland?	Yes	No	
Remarks:						
Upland data point taken on a	siope iii a pastare as	ove a aspression contain	ing a saturated to serin p	ormanently needs	a i i o wedana.	
HYDROLOGY						
Wetland Hydrology Indicate	ors:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum	of one is required; c	heck all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B						
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)						
Saturation (A3)			es on Living Roots (C3)	Moss Trim Li		
Water Marks (B1)		Presence of Reduced			Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur		
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)		tressed Plants (D1)	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (B7)			Geomorphic Shallow Aqui	Position (D2)	
Water-Stained Leaves (E					aphic Relief (D4)	
Aquatic Fauna (B13)	20)			FAC-Neutral	. , ,	
Field Observations:						
Surface Water Present?	Yes No	Depth (inches):				
Water Table Present?		Depth (inches):				
Saturation Present?		Depth (inches):		lydrology Preser	nt? Yes No	
(includes capillary fringe)		. , , , , , , , , , , , , , , , , , , ,				
Describe Recorded Data (str	eam gauge, monitori	ng well, aerial photos, pre	vious inspections), if ava	illable:		
Remarks:						
no hydrology indicators prese	nt					

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: waua050_u
	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30)  1. Quercus palustris	% Cover 5	Species? Yes	Status FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2. Acer rubrum	5	Yes	FAC	That Ale OBE, I ACW, OI I AC (A)
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover:5	20% of	total cover:_	2	OBL species
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1. Rosa multiflora	5	Yes	FACU	FAC species X 3 =
2				FACU species x 4 = 248
3				UPL species x 5 =45
4				Column Totals: (A) (B)
F				
5 6.		·		Prevalence Index = B/A =3.7
··				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	5	·		3 - Prevalence Index is ≤3.0 <sup>1</sup>
25	. ——	= Total Cove	r 1	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 2.5	20% of	total cover:_		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5	00			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Schedonorus arundinaceus	20	Yes	FACU	1 Toblematio Trydrophytio Vegetation (Explain)
2. Anthoxanthum odoratum	20	Yes	FACU	<sup>1</sup> Indicators of hydric soil and watland hydrology must
3. Holcus lanatus	15	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 <sub>.</sub> Trifolium repens	10	No	FACU	Definitions of Four Vegetation Strata:
<sub>5.</sub> Ranunculus acris	10	No	FAC	
<sub>6.</sub> Taraxacum officinale	7	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
<sub>7.</sub> Stellaria media	5	No	UPL	more in diameter at breast height (DBH), regardless of height.
8. Hypochaeris radicata	4	No	UPL	
9.				Sapling/Shrub – Woody plants, excluding vines, less
40				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10 11.		·		
11	91			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45.		= Total Cove total cover:_		of size, and woody plants less than 3.26 it tall.
Woody Vine Stratum (Plot size: 30 )	2070 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
(1.101.01201				height.
1				
2				
3				
4	. ———			Hydrophytic
5				Vegetation
		= Total Cove	^	Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			1

Depth	Matrix		Redox Features	<del>-</del> _	
nches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-4	10YR 3/3	100 		SCL SCL	
4-11	10YR 4/3	100		SCL	
11-20	10YR 4/4	100		CL	
					· .
				<del></del> -	-
				<u> </u>	
5/po: C-C	Concentration D-Da	nlotion PM-Pa	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> l continue [	-
	Indicators:	pietion, Rivi=Re	educed Matrix, MS=Masked Sand Grains.		cators for Problematic Hydric Soils <sup>3</sup> :
_ Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 14	· · · —	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)	,	Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	ce (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
_ Thick D	ark Surface (A12)		Redox Depressions (F8)		
_ Sandy l	Mucky Mineral (S1)	(LRR N,	Iron-Manganese Masses (F12) (LRR N	,	
MLR	A 147, 148)		MLRA 136)		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		etland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127,	<b>147)</b> ui	nless disturbed or problematic.
	Layer (if observed)	):			
Type: no	one		_		
Depth (in	nches):		_	Hydric So	il Present? Yes No
lemarks:				<u> </u>	



Photo 1 Upland data point WAUA050\_u facing east



Photo 2 Upland data point WAUA050\_u facing south

Project/Site: Atlantic Coast Pipeline		City/County: Augusta		Sampling Date: 5/11/2015		
Applicant/Owner: Dominion			State: VA	Sampling Point: waua059f_w		
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): linear de						
Subregion (LRR or MLRA): S	Lat: 37.966598	37 Long	g: -78.95958826	Datum: WGS 1984		
Soil Map Unit Name: Craigsville cobbly sai	ndy loam		NWI classific	cation: None		
Are climatic / hydrologic conditions on the s	site typical for this time of					
Are Vegetation, Soil, or Hyd	drology significa	ntly disturbed? Are "I	Normal Circumstances"	oresent? Yes No		
Are Vegetation, Soil, or Hyd						
SUMMARY OF FINDINGS – Atta						
Hydrophytic Vegetation Present?	Yes <u>✓</u> No					
	Yes No	is the Sampled		No		
	Yes V No	within a Wetlan	d? Yes	No		
Remarks:	<u> </u>					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is red	nuired: check all that an	olv)	Surface Soil			
Surface Water (A1)		ic Plants (B14)		getated Concave Surface (B8)		
✓ High Water Table (A2)		Sulfide Odor (C1)	<u>✓</u> Drainage Pa			
Saturation (A3)		hizospheres on Living Roots				
Water Marks (B1)		f Reduced Iron (C4)		Water Table (C2)		
Sediment Deposits (B2)		Reduction in Tilled Soils (C	· · · · · · · · · · · · · · · · · · ·			
Drift Deposits (B3)	Thin Muck	Surface (C7)	Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Exp	ain in Remarks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)			<del></del>	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)			FAC-Neutral	Test (D5)		
Field Observations:						
	_ No _ Depth (inc					
	_ No Depth (inc	nes):				
Saturation Present? Yes (includes capillary fringe)	No Depth (inc	hes): We	tland Hydrology Presei	nt? Yes V No		
Describe Recorded Data (stream gauge,	monitoring well, aerial p	hotos, previous inspections)	), if available:			
Remarks:						

/EGETATION (Four Strat	a) – Use scientific na	ames of	plants.		Sampling Point: waua059f_w
		Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:	30)	% Cover 20	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:10(A)
2. Nyssa sylvatica		10	Yes	FAC	That Ale OBL, FACW, OF FAC (A)
			· ——		Total Number of Dominant
3					Species Across All Strata:10 (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 100 (A/B)
6					
7.					Prevalence Index worksheet:
		30	= Total Cove		Total % Cover of: Multiply by:
	50% of total cover: 15		total cover:_	6	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot siz	15	_	_		FACW species 7
1. Ilex verticillata	o	5	Yes	FACW	FAC species65
2. Viburnum dentatum		5	Yes	FAC	FACU species 4 x 4 = 16
3. Nyssa sylvatica		5	Yes	FAC	UPL species 0 x 5 = 0
		5			76 225
4. Acer rubrum			Yes	FAC	Column Totals: (A) 223 (B)
5. Rosa multiflora		4	No	FACU	Prevalence Index = B/A = 2.96
6			<u> </u>		Trevalence index = b/A =
_					Hydrophytic Vegetation Indicators:
					1 - Rapid Test for Hydrophytic Vegetation
9.			· <del></del>		2 - Dominance Test is >50%
ə. <u> </u>		24	Tatal Cause		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	50% of total cover: 12		= Total Cove total cover:	er 4.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	0070 01 10101 00701.	20% 01	total cover		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)	5	V	<b>540</b>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
'' <del></del>			Yes	FAC	
2. Carex grayi		2	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
4					Definitions of Four Vegetation Strata:
5.					Definitions of Four Vegetation Strata.
•			· <u></u> -		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
_					more in diameter at breast height (DBH), regardless of
/	_		· <del></del>		height.
					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11					<b>Herb</b> – All herbaceous (non-woody) plants, regardless
		7	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 3.5	20% of	total cover:_	1.4	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:	30 )				height.
1. Smilax rotundifolia		12	Yes	FAC	
2. Toxicodendron radicans		3	Yes	FAC	
_					
_					
					Hydrophytic
5					Vegetation Present? Yes No
	7.		= Total Cove	er 3	riesent? res No
	50% of total cover: 7.5	20% of	total cover:_		
Remarks: (Include photo number	ers here or on a separate sh	neet.)			

Depth	Matrix			k Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10YR 4/2	97	10YR 4/6	3	C	PL/M	SL	cobble below 6"
						· <del></del>		
		ation DM	Dadusad Matrix MC	· Maalaad	C = = 1 C =	-:	21	N. Dave Linian M. Matrix
lydric Soil I	oncentration, D=Depl	etion, Rivi	=Reduced Matrix, MS	=IVIaskea	Sand Gr	ains.		L=Pore Lining, M=Matrix.  ators for Problematic Hydric Soils <sup>3</sup> :
•			Dorle Curfoso	(07)				
Histosol	(A1) pipedon (A2)		Dark Surface Polyvalue Be		oo (CO) <b>(N</b>	NI DA 147		2 cm Muck (A10) <b>(MLRA 147)</b> Coast Prairie Redox (A16)
Histic Ep Black Hi			Thin Dark Su				140) (	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			147, 140)	_	Piedmont Floodplain Soils (F19)
	Layers (A5)		<u>✓</u> Depleted Mat		2)		<u> </u>	(MLRA 136, 147)
	ick (A10) <b>(LRR N)</b>		Redox Dark S		6)		\	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre				<del></del>	,
	lucky Mineral (S1) (L	.RR N,	Iron-Mangane			LRR N,		
	\ 147, 148)	•	MLRA 130		· / ·	•		
	leyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					lless disturbed or problematic.
	ayer (if observed):							
Type: no	ne							
Depth (inc							Hydric Soi	I Present? Yes No
Remarks:	, -							



**Photo 1**Wetland data point WAUA059f\_w facing northeast



**Photo 2**Wetland data point WAUA059f\_w facing southwest

Project/Site: Atlantic Coast Pi	peline	City/C	county: Augusta		Sampling Date: 5/11/2015		
Applicant/Owner: Dominion					Sampling Point: waua059_u		
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, e							
Subragion (LDD or MLDA). S	10.).	1 at. 37.96660913	Jana: -78.9	9596518	Datum: WGS 1984		
Subregion (LRR of MLRA): Craigsvi	ille cobbly sandy lo:	_ Lat: <u></u>	Long:		. None		
Soil Map Unit Name: Craigsvi							
Are climatic / hydrologic condi							
Are Vegetation, Soil	, or Hydrology	y significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes 🔽 No		
Are Vegetation, Soil	, or Hydrolog	y naturally problema	atic? (If needed, e	xplain any answer	s in Remarks.)		
SUMMARY OF FINDIN	IGS – Attach s	ite map showing san	npling point locatio	ns, transects,	important features, etc.		
Hudrophytic Vagotation Broa	ont? Voc	<b>√</b> No					
Hydrophytic Vegetation Pres Hydric Soil Present?		NoNo	Is the Sampled Area		🗸		
Wetland Hydrology Present?	Yes	No_ ✓	within a Wetland?	Yes	No		
Remarks:							
Upland data point taken on a	gernie slope for a s	saturated PPO wettand loca	led in a linear depression				
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum	of one is required;		<u> </u>	Surface Soil (	Cracks (B6)		
					etated Concave Surface (B8)		
<ul> <li>High Water Table (A2)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Drainage Patterns (B10)</li> <li>Saturation (A3)</li> <li>Oxidized Rhizospheres on Living Roots (C3)</li> <li>Moss Trim Lines (B16)</li> </ul>							
Saturation (A3)	Moss Trim Li						
Water Marks (B1)		Presence of Reduced		-	Dry-Season Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burn			
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (0 Other (Explain in Rer			Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)		
Iron Deposits (B5)		Other (Explain in Nei	narks)	Geomorphic I			
Inundation Visible on Ae	erial Imagery (B7)			Shallow Aquit			
Water-Stained Leaves (	,				phic Relief (D4)		
Aquatic Fauna (B13)	,			FAC-Neutral	, ,		
Field Observations:							
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?	Yes No	Depth (inches):					
Saturation Present?	Yes No	Depth (inches):	Wetland H	ydrology Presen	t? Yes No		
(includes capillary fringe)  Describe Recorded Data (str	ream gauge monito	oring well aerial photos, pre	vious inspections) if avai	ilahle:			
Describe Necorded Data (Str	cam gauge, monite	oning wen, acriai priotos, pre	vious irispections), ii avai	ilabic.			
Remarks:							
no hydrology indicators prese	ent						

Sampling Point: waua059	9_	u
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00	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species _
1. Quercus rubra	25	Yes	FACU	That Are OBL, FACW, or FAC:5 (A)
2. Quercus alba	25	Yes	FACU	Total Number of Deminent
3. Acer rubrum	10	No	FAC	Total Number of Dominant Species Across All Strata: 9 (B)
4. Nyssa sylvatica	10	No	FAC	
5. Juglans nigra	5	No	FACU	Percent of Dominant Species That Are ORL FACW or FAC: 55.5555555 (A/R)
···				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
1	75			Total % Cover of: Multiply by:
37.6	. ——— '	= Total Cove	er 15	OBL species $0 \times 1 = 0$
50% of total cover: <u>37.5</u>	20% of	total cover:_		FACW species x 1 = 0
Sapiling/Shrub Stratum (Plot size:)		.,		60 307
1. Gaylussacia baccata	10	Yes	FACU	FAC species X3 = 260
2. Nyssa sylvatica	10	Yes	FAC	FACU species X 4 =
3. Viburnum dentatum	10	Yes	FAC	UPL species x 5 =
4. Rosa multiflora	5	No	FACU	Column Totals: (A) (B)
5. Prunus serotina	5	No	FACU	3.56
6. Fagus grandifolia	4	No	FACU	Prevalence Index = B/A =3.56
7 Berberis thunbergii	4	No	FACU	Hydrophytic Vegetation Indicators:
• •	<u> </u>			1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	40			3 - Prevalence Index is ≤3.0 <sup>1</sup>
24		= Total Cove	er 9.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 24	20% of	total cover:_	9.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Panicum capillare	3	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
2. Mitchella repens	2	Yes	FACU	4
3. Carex blanda	1	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions of Four Vegetation Strata:
				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	6	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:3	20% of	total cover:_	1.2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Smilax rotundifolia	15	Yes	FAC	
2. Toxicodendron radicans	10	Yes	FAC	
3. Parthenocissus quinquefolia	5	No	FACU	
4				
T				Hydrophytic
5	20			Vegetation Present? Yes No
50% of total cover 15		= Total Cove	er 6	11030HC: 103 NO
00 /0 01 total 00 vc1.		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: waua059\_u

Depth	Matrix		Redox Features		<b>-</b>	
nches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-7	10YR 4/3	100			SL	cobble below 7"
	-	· —— —		<del></del>		
		· — — —				
		<u> </u>				
				<del></del>		
		· — — —				-
		<u> </u>				
				· .——	21 11 5	
		letion, RM=Re	educed Matrix, MS=Masked Sand G	ains.		L=Pore Lining, M=Matrix.
	Indicators:					ators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol			Dark Surface (S7)			cm Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Below Surface (S8) (I		<b>148)</b> C	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9) (MLRA	147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)			ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)			
	Mucky Mineral (S1) <b>(L</b>	₋RR N,	Iron-Manganese Masses (F12)	(LRR N,		
MLR	A 147, 148)		MLRA 136)			
_ Sandy 0	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 13	36, 122)	<sup>3</sup> Ind	licators of hydrophytic vegetation and
_ Sandy F	Redox (S5)		Piedmont Floodplain Soils (F19)	(MLRA 148	<b>3)</b> we	etland hydrology must be present,
Stripped	d Matrix (S6)		Red Parent Material (F21) (MLF	RA 127, 147	) un	less disturbed or problematic.
	Layer (if observed):					
Type: no	one					
Depth (in			_		Hydric Soil	Present? Yes No
			_		Tiyano oon	1103CHL 103 NO
emarks:						



Photo 1
Upland data point WAUA059\_u facing northwest



**Photo 2**Upland data point WAUA059\_u facing northeast

Project/Site: Atlantic Coast Pipeline		City/C	County: Augusta		Sampling Date: 5/11/2015			
Applicant/Owner: Dominion				State: VA	Sampling Point: waua060f_w			
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area								
Landform (hillslope, terrace, etc.): dep								
Subregion (LRR or MLRA):								
Soil Map Unit Name: Philo silt loam				NWI classific	cation: None			
Are climatic / hydrologic conditions on	the site typical fo							
Are Vegetation, Soil, c								
Are Vegetation, Soil, c								
SUMMARY OF FINDINGS -								
Lhudwanhudia Vanatatian Dunaanto		Na						
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes V	No No	Is the Sampled Area					
Wetland Hydrology Present?		 No	within a Wetland?	Yes	No			
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one	is required: checl	( all that annly)						
Surface Water (A1)	-	True Aquatic Plants (	R14)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
✓ High Water Table (A2)		Hydrogen Sulfide Od		Sparsely vegetated Concave Surface (Bo) Drainage Patterns (B10)				
Saturation (A3)			xidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)					
Water Marks (B1)		Presence of Reduced			Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burrows (C8)				
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)				✓ Geomorphic Position (D2)				
Inundation Visible on Aerial Ima	gery (B7)			Shallow Aquitard (D3)				
✓ Water-Stained Leaves (B9)				Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)			
Field Observations:								
		Depth (inches):	5					
	<b>∨</b> No	Depth (inches):	2					
Saturation Present? Yes (includes capillary fringe)	✓ No	Depth (inches):	Wetland F	lydrology Prese	nt? Yes / No			
Describe Recorded Data (stream ga	uge, monitoring v	vell, aerial photos, pre	vious inspections), if ava	nilable:				
Remarks:								

		plants.		Sampling Point: waua060f_w
	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)  1. Nyssa sylvatica	% Cover 15	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
2. Acer rubrum	15	Yes	FAC	
3				Total Number of Dominant Species Across All Strata: 7 (B)
4				Opedies Adioss All Otiala. (b)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	30			Total % Cover of: Multiply by:
45		= Total Cove	r 6	OBL species0 x 1 =0
50% of total cover: 15	20% of	total cover:_		33
Sapiing/Shrub Stratum (Plot size:)				FACW species X Z = 210
1. llex verticillata	18	Yes	FACW	FAC species X3 = X3 =
2. Viburnum dentatum	5	No	FAC	FACU species x 4 =
3. Nyssa sylvatica	5	No	FAC	UPL species x 5 =
4. Chionanthus virginicus	3	No	FAC	Column Totals: (A) (B)
5				0.70
				Prevalence Index = B/A =2.72
6				Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
4		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 15.5	20% of	total cover:_	6.2	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				
1. Osmundastrum cinnamomeum	10	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Panicum capillare	8	Yes	FAC	
3. Carex grayi	5	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
A Fragaria vesca	4	No	FACU	be present, unless disturbed or problematic.
5. Carex blanda	4	No	FAC	Definitions of Four Vegetation Strata:
6. Monarda didyma	3	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Wonarda didyina			170	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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	34	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:17		total cover:_	6.8	W 1 2 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Woody Vine Stratum (Plot size:)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
	8	Yes	FAC	neight.
1. Smilax rotundifolia	4	Yes	FAC	
1. Smilax rotundifolia 2. Toxicodendron radicans	4	Yes	FAC	
1. Smilax rotundifolia 2. Toxicodendron radicans 3.		Yes	FAC	
1. Smilax rotundifolia 2. Toxicodendron radicans 3		Yes	FAC	Hydrophytic
1. Smilax rotundifolia 2. Toxicodendron radicans 3.		Yes	FAC	Vegetation
1. Smilax rotundifolia 2. Toxicodendron radicans 3		Yes		

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-8	10YR 2/1	100					SL	
8-14	10YR 4/2	96	10YR 4/6	4	С	PL/M	SL	cobble below 14"
	•							
	-							
Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	=Masked S	Sand Gra	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		e (S8) (N	ILRA 147,		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				· —	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		F	Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		✓ Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F6	i)		\	/ery Shallow Dark Surface (TF12)
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	k Surface (	F7)		c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre	ssions (F8)	)			
Sandy N	Mucky Mineral (S1) (L	.RR N,	Iron-Mangane	ese Masses	s (F12) <b>(</b> I	LRR N,		
MLRA	A 147, 148)		MLRA 136	5)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(M</b>	ILRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soi	ils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
	l Matrix (S6)		Red Parent M	laterial (F2	1) <b>(MLR</b> .	A 127, 147	' <b>)</b> un	lless disturbed or problematic.
	Layer (if observed):							
Type: no	ne							
Depth (in	ches):						Hydric Soil	l Present? Yes 🖊 No
Remarks:	-							



Photo 1
Wetland data point WAUA060f\_w facing north northeast



**Photo 2**Wetland data point WAUA060f\_w facing south southwest

Project/Site: Atlantic Coast Pipe	eline	City/C	county: Augusta		Sampling Date: 5/11/2015				
Applicant/Owner: Dominion					Sampling Point: waua060_u				
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area									
Landform (hillslope, terrace, etc									
Subregion (LRR or MLRA): S									
Soil Map Unit Name: Philo silt lo		_ Lat							
Are climatic / hydrologic condition		•		•	,				
Are Vegetation, Soil	, or Hydrolog	y significantly distur	bed? Are "Normal	Circumstances"	present? Yes No				
Are Vegetation, Soil	, or Hydrolog	y naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)				
SUMMARY OF FINDING	S – Attach s	ite map showing sam	pling point location	ns, transects	s, important features, etc.				
Hudrophytic Vagotation Broom	nt? Voc	✓ No							
Hydrophytic Vegetation Present Hydric Soil Present?		NoNo	Is the Sampled Area						
Wetland Hydrology Present?	Yes	No	within a Wetland?	Yes	No				
Remarks:									
Upland data point for a saturate	ed PPO Welland I	ocated in a network of depre	essions and swales local	ей он пооиргант с	of Orebank Greek - Sauauo/.				
HYDROLOGY									
Wetland Hydrology Indicator	rs:			Secondary Indica	ators (minimum of two required)				
Primary Indicators (minimum c	of one is required	; check all that apply)		Surface Soil	Cracks (B6)				
Surface Water (A1)		True Aquatic Plants (	B14)	Sparsely Ve	getated Concave Surface (B8)				
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa	atterns (B10)				
Saturation (A3)		Oxidized Rhizosphere		Moss Trim L					
Water Marks (B1)		Presence of Reduced			Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bu					
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)		Stressed Plants (D1)				
Iron Deposits (B5)	(57)				Position (D2)				
Inundation Visible on Aeri				Shallow Aquitard (D3)					
Water-Stained Leaves (BS Aquatic Fauna (B13)	<del>)</del> )				aphic Relief (D4)				
				FAC-Neutra	1 Test (D5)				
Field Observations:	Vaa Na	V Donth (inches)							
Surface Water Present? Water Table Present?		Depth (inches): Depth (inches):	21						
		Depth (inches):	10	landural a sua Dura a s					
Saturation Present? (includes capillary fringe)					nt? Yes No				
Describe Recorded Data (streaturned on water table and satur									
Remarks:			•						
no hydrology indicators presen	t								

Sampling Point: Wa
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Time Stratum (Pict size: 30 )   St. Cover   Species   Sealest   20   Yes   FACU	•	Absolute	Dominant In	dicator	Dominance Test worksheet:
2 Querus rubrior 3 Nyssas sylvatics 3 Nyssas sylvatics 5 Prous ngids 6	Tree Stratum (Plot size: 30 )				Number of Dominant Species
Nyssa sylvatica   15					That Are OBL, FACW, or FAC:5 (A)
Species Across Al Stratus					Total Number of Dominant
Provided   Provided					Species Across All Strata: 8 (B)
That Are OBL, FACW, or FAC:   62.5   (A/B)	•				Percent of Dominant Species
Prevalence Index worksheet:	5. Pinus rigida			FACU	
Total Cover   15	6				Dravelance Index weather to
Solinic/Shrub Stratum   Plot size   15   15   20% of total cover   15   20% of	7				
Soling Shrub Stratum (Plot size:   15   15   7es   FAC   F			= Total Cover	4-	
Nyssa sylvatice		20% of	total cover:	15	3
1	Sapling/Snrub Stratum (Plot size:)				FACVV species X Z = 242
2 youtname beneature   10	11, 1				FAC species x 3 =
A Liriodendron tullipifera   66 No FACU					7 X 4 =
4. Lincedardon tulipiteria  5. Vibirum acerifolium  6. Sassafras albidum  7. Rhododendron periclymenoides  8. 9.					UPL species X 5 =
6. Sassafras albidum 7. Rhododendron perictymenoides 8. 9.	4. Liriodendron tulipifera	6	No No		Column Totals: (A) (B)
6. Sassafras albidum 7. Rhododendron periclymenoides 8. 3 No FACU 7. Rhododendron periclymenoides 8. 4 No FACU 8. 4 A FOOLOWER 8. 50% of total cover:    S0% of total cover: 24   20% of total cover: 9.6     Herb Stratum (Plot size: 5 )   1. Fragaria vesca   15 Yes FACU 2. Panicum capillare 3. Maianthemum stellatum 4. Carex blanda   2 No FACU 5. Medeola virginiana   2 No FACU 8. 5 Medeola virginiana   2 No FACU 8. 9		3	No	UPL	Prevalence Index - B/A - 3.51
1 - Rapid Test for Hydrophytic Vegetation   1 - Rapid Test for Hydrophytic Vegetation   1 - Rapid Test for Hydrophytic Vegetation   2 - Dominance Test is > 50%   3 - Prevalence Index is ≤ 3.0¹   4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)   - Problematic Hydrophytic Vegetation¹ (Explain)   - Problematic Hydrophytic Vegetation² (Explain)   - Pro	6. Sassafras albidum	3	No	FACU	Trevalence mack = B/Tt =
Note	7. Rhododendron periclymenoides	3	No	FAC	
15	8				
Solid cover   24   20% of total cover   9.6     Herb Stratum (Plot size: 5   5   5   7   5   7   5   7   5   7   5     Fragaria vesca	9				<del></del>
Solida Cover:   24   20% of total cover:   9.6     4   Morphological Adaptations (Provide Suppring data in Remarks or on a separate sheet)		48	= Total Cover		
Fragaria vesca	50% of total cover: 24			9.6	
Panicum capillare	Herb Stratum (Plot size:5				, , ,
3 Maianthemum stellatum 4 Carex blanda 5 Medeola virginiana 6 2 No FAC 6 6 6 7	1. Fragaria vesca	15	Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
3 Maianthemum stellatum 4 Carex blanda 5 Medeola virginiana 6 2 No FAC 6 6 6 7	2. Panicum capillare	4	No	FAC	
Carex blanda   2 No FAC   No FAC   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 or equal to 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 Stratum (Plot size: 30 )   1. Smilax rotundifolia   14 Yes FAC   Tree – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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.   Hydrophytic Vegetation Present?   Yes No	3. Maianthemum stellatum	3	No	FACW	
5. Medeola virginiana  2. No FAC 6.	4. Carex blanda	2	No	FAC	
7	Medeola virginiana	2	No	FAC	Definitions of Four Vegetation Strata:
7	6.				
8	7				
9					neight.
10	9				
11.	10				
Solve of total cover:   13   26   = Total Cover   5.2   20% of total cover:   5.2     Solve of total cover:   13   20% of total cover:   5.2     Solve of total cover:   5.2     Solve of total cover:   14   Yes   FAC     FAC		-			,
Solidar cover:   13   20% of total cover:   5.2		26	- Total Cover		
Woody Vine Stratum (Plot size: 30 )  1. Smilax rotundifolia 14 Yes FAC  2. Toxicodendron radicans 6 Yes FAC  3. Vitis labrusca 3 No FACU  4.	50% of total cover: 13				of size, and woody plants less than 5.25 it tail.
1. Smilax rotundifolia       14       Yes       FAC         2. Toxicodendron radicans       6       Yes       FAC         3. Vitis labrusca       3       No       FACU         4					, ,
2. Toxicodendron radicans 3. Vitis labrusca 3. No FACU 4		14	Yes	FAC	neignt.
3 No FACU 4	1-	6			
4	2.	3			
5					
23       = Total Cover         50% of total cover:       11.5         20% of total cover:       4.6             Present?       Yes         No					
50% of total cover: 11.5 20% of total cover: 4.6	5	22			Vegetation   Present?   Yes   No
20 % of total cover	50% of total appears 11.5				105 105
Remarks: (Include photo numbers here or on a separate sheet.)			total cover:		
	Remarks: (Include photo numbers here or on a separate s	neet.)			

Sampling Point: waua060\_u

SOIL

Depth	Matrix			k Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remarl	ks
0-3	10YR 2/2	100					SL			
3-10	10YR 3/3	100					SL			
10-16	10YR 3/2	100					SL			
16-24	10YR 4/2	97	10YR 4/6	3			SCL	-		
10-24	10111 4/2		10110 4/0							
			-							
¹Type: C-C	oncentration D-Den	Jetion RM	I=Reduced Matrix, MS		Sand Gra	ine	<sup>2</sup> Location: Pl	-Pore Lini	ing M-Mat	riv
Hydric Soil		netion, ixiv	i-Reduced Matrix, Mc	-IVIASKEU	Sand Ora					Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(\$7)				cm Muck (		
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	I RA 147		oast Prairie	, .	•
	istic (A3)		Tolyvalde Be				, 0	(MLRA 14		,
	en Sulfide (A4)		Loamy Gleye			, <b>-,</b>	Р	iedmont Flo		oils (F19)
	d Layers (A5)		Depleted Mat		,			(MLRA 13		,
	uck (A10) (LRR N)		Redox Dark S		6)		v			ace (TF12)
Deplete	d Below Dark Surfac	e (A11)	Depleted Dar	k Surface	(F7)		0	ther (Expla	in in Rema	rks)
	ark Surface (A12)		Redox Depre							
	Mucky Mineral (S1) (I	LRR N,	Iron-Mangane		es (F12) <b>(l</b>	.RR N,				
	A 147, 148)		MLRA 136	•			•			
	Gleyed Matrix (S4)		Umbric Surfa							vegetation and
	Redox (S5)		Piedmont Flo							be present,
	Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b> /	127, 147	() uni	less disturb	ed or probl	ematic.
	Layer (if observed): one	•								
Type: no										
Depth (in	ches):						Hydric Soil	Present?	Yes	No
Remarks:										



Photo 1 Upland data point WAUA060\_u facing west



**Photo 2** Upland data point WAUA060\_u facing north northwest

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta		Sampling Date: 5/11/2015	
Applicant/Owner: Dominion				State: VA	Sampling Point: waua061f_w	
Investigator(s): GB, SA						
Landform (hillslope, terrace, etc.): brown						
Subregion (LRR or MLRA): N						
Soil Map Unit Name: Craigsville cobb	oly sandy loam			NWI classific	cation: None	
Are climatic / hydrologic conditions or	n the site typical fo	r this time of year? Y	es No	(If no, explain in F	Remarks.)	
Are Vegetation, Soil,	or Hydrology	significantly distur	bed? Are "Norma	l Circumstances"	present? Yes No	
Are Vegetation, Soil,						
SUMMARY OF FINDINGS -						
Hydrophytic Vegetation Present?	Voc V	No				
Hydric Soil Present?		 No	Is the Sampled Area	V	No	
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (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 Ve	getated Concave Surface (B8)	
✓ High Water Table (A2)		Hydrogen Sulfide Od	or (C1)	✓ Drainage Pa	atterns (B10)	
Saturation (A3)		Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim L	ines (B16)	
Water Marks (B1)		Presence of Reduced	d Iron (C4)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift Deposits (B3)		Thin Muck Surface (0		Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)		
Iron Deposits (B5)	(57)			Geomorphic Position (D2)		
<ul><li> Inundation Visible on Aerial Ima</li><li>✓ Water-Stained Leaves (B9)</li></ul>	igery (B7)			Shallow Aquitard (D3) ✓ Microtopographic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral Test (D5)		
Field Observations:				I AO-Neulla	r rest (D3)	
	No _ 🗸	Denth (inches):				
			7			
	No		5 Wetland h	Hydrology Prese	nt? Yes V No	
(includes capillary fringe)					165 <u> </u>	
Describe Recorded Data (stream ga	auge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:		
Remarks:						
Nomano.						

00	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	<u>% Cover</u> 25	Species?	Status FACU	Number of Dominant Species
1. Quercus alba	15	Yes		That Are OBL, FACW, or FAC:11 (A)
2. Nyssa sylvatica		Yes	FAC	Total Number of Dominant
3. Quercus rubra	12	No No	FACU	Species Across All Strata: 13 (B)
4. Liriodendron tulipifera	10	No No	FACU	Percent of Dominant Species
5. Quercus velutina	10	No		That Are OBL, FACW, or FAC:  84.61538461 (A/B)
6. Acer rubrum	5	No	FAC	
7				Prevalence Index worksheet:
		= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 38.5	20% of	total cover:_	15.4	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1. Nyssa sylvatica	10	Yes	FAC	FAC species x 3 =
2. Lindera benzoin	8	Yes	FAC	FACU species65
3. Viburnum dentatum	7	Yes	FAC	UPL species x 5 =
4. Ilex verticillata	6	Yes	FACW	Column Totals:189
5. Carpinus caroliniana	5	No	FAC	2.02
6. Liriodendron tulipifera	5	No	FACU	Prevalence Index = B/A =3.02
7. Sassafras albidum	5	No	FACU	Hydrophytic Vegetation Indicators:
8. Gaylussacia frondosa	4	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
g. Acer rubrum	4	No	FAC	2 - Dominance Test is >50%
5. <u></u>	54	= Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 27		total cover:	10.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5 )	2070 01	total cover		data in Remarks or on a separate sheet)
1 Osmundastrum cinnamomeum	20	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Symplocarpus foetidus	7	Yes	OBL	
3. Carex grayi	7	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Osmunda spectabilis	7	Yes	OBL	be present, unless disturbed or problematic.
5. Lycopodium clavatum		No	FAC	Definitions of Four Vegetation Strata:
	4	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Medeola virginiana			FAC	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
10				m) tall.
11				Herb - All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:25	20% of	total cover:_	10	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)	0	\/	EAGLI	height.
1. Parthenocissus quinquefolia	8	Yes	FACU	
2. Toxicodendron radicans	5	Yes	FAC	
3. Smilax rotundifolia	5	Yes	FAC	
4				Hydrophytic
5				Vegetation
	18	= Total Cove		Present? Yes No
50% of total cover: 9	20% of	total cover:_	3.6	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the dep	oth needed to docum	ent the in	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox	Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 2/1	100					SL	
4-9	10YR 3/1	96	10YR 4/6	4	С	PL/M	SCL	
9-20	10YR 4/1	96	10YR 4/6	4	C	PL/M	SCL	
	1011(4/1		1011( 4/0					
			-					
-			-		-			-
1Type: C-C	ncentration D-Denk	etion PM	=Reduced Matrix, MS	-Macked	Sand Gr	aine	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil		ellon, Kivi	=Reduced Matrix, MS	=iviaskeu	Sand Gr	all iS.		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(87)				cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Bel		co (S8) <b>(N</b>	II D A 1/17		coast Prairie Redox (A16)
Black Hi			Thin Dark Sur				146) 0	(MLRA 147, 148)
	n Sulfide (A4)			, ,	•	47, 140)	П	iedmont Floodplain Soils (F19)
			Loamy Gleyed		r2)		_ r	
	Layers (A5)		<u>✓</u> Depleted Mati		0)			(MLRA 136, 147)
	ck (A10) (LRR N)	(044)	Redox Dark S	,	,			ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dark					other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depres			I DD N		
	lucky Mineral (S1) (L	KK N,	Iron-Mangane		es (F12) (	LKK N,		
	147, 148)		MLRA 136			0 400)	3,	Sections of books about a constation and
	leyed Matrix (S4)		Umbric Surfac					icators of hydrophytic vegetation and
	edox (S5)		Piedmont Floo					tland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	) uni	less disturbed or problematic.
	ayer (if observed):							
Type: no								
Depth (inc	ches):		<u></u>				Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point waua061f\_w facing south



Photo 2
Wetland data point waua061f\_w facing west

Project/Site: Atlantic Coast Pip	peline	City/C	county: Augusta		Sampling Date: 5/11/2015			
Applicant/Owner: Dominion					Sampling Point: waua061_u			
Investigator(s): GB, SA		Section						
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area  Landform (hillslope, terrace, etc.): Slope Slope (%): 5								
					Datum: WGS 1984			
Soil Map Unit Name: Craigsvil	le cobbly sandy loam		Long.					
Are climatic / hydrologic condit		-						
					oresent? Yes No			
Are Vegetation, Soil	, or Hydrology _	naturally problemate	atic? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDIN	GS – Attach site	map showing san	pling point location	ons, transects	, important features, etc.			
Hydrophytic Vegetation Pres	ent? Yes	No						
Hydric Soil Present?		No✓	Is the Sampled Area within a Wetland?	Voc	No 🗸			
Wetland Hydrology Present?		No 🗸	within a wettand:	165				
Remarks:								
Upland data point taken above toe of slope for a saturated PFO wetland located in a broad, low gradient draw along and at the confluence of streams saua068 and saua069.								
HYDROLOGY								
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soil Cracks (B6)				
Surface Water (A1)	_	True Aquatic Plants (	B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		or (C1) es on Living Roots (C3)	Drainage Pa	tterns (B10)				
Saturation (A3)	ines (B16)							
Water Marks (B1)		d Iron (C4) In in Tilled Soils (C6)		Water Table (C2)				
Sediment Deposits (B2)	_	Crayfish Burrows (C8)						
Drift Deposits (B3)	_	Saturation Visible on Aerial Imagery (C9)						
Algal Mat or Crust (B4)	_		tressed Plants (D1)					
Iron Deposits (B5)	rial Imagary (P7)			Position (D2)				
Inundation Visible on Ae Water-Stained Leaves (E			Shallow Aquitard (D3) Microtopographic Relief (D4)					
Aquatic Fauna (B13)	33)			FAC-Neutral	• • •			
Field Observations:					. 551 (2-5)			
Surface Water Present?	Yes No	Depth (inches):						
Water Table Present?		Depth (inches):						
Saturation Present?		Depth (inches):		lydrology Preser	nt? Yes No			
(includes capillary fringe)		_ , , , , _		-	<u></u> <u></u>			
Describe Recorded Data (stre	eam gauge, monitorin	g well, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
no hydrology indicators prese	nt							

Sampling	Point: waua061	_u
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00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover 20	Species?	Status FACU	Number of Dominant Species
1. Quercus alba		Yes		That Are OBL, FACW, or FAC:3 (A)
2. Pinus strobus	20	Yes	FACU	Total Number of Dominant
3. Quercus rubra	12	No	FACU	Species Across All Strata: 8 (B)
4. Carya cordiformis	10	No	FACU	
5. Liriodendron tulipifera	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:  37.5 (A/B)
6. Acer rubrum	4	No	FAC	matrice obe, trieve, or tries.
7 Nyssa sylvatica	3	No	FAC	Prevalence Index worksheet:
.,	74	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 37		total cover:_	14.8	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )	20 /0 0.			FACW species0 x 2 =0
1 Gaylussacia frondosa	10	Yes	FAC	FAC species74 x 3 =222
2. Carpinus caroliniana	10	Yes	FAC	FACU species 145 x 4 = 580
3. Sassafras albidum	10	Yes	FACU	UPL species 4 x 5 = 20
	5	No	FAC	223 822
4. Acer rubrum				Column Totals:(A)(B)
5. Carya cordiformis	5	No	FACU	Prevalence Index = B/A = 3.68
6. Betula lenta	5	No	FACU	Hydrophytic Vegetation Indicators:
7. Acer rubrum	4	No	FAC	
8. Viburnum acerifolium	4	No	UPL	1 - Rapid Test for Hydrophytic Vegetation
9.		·		2 - Dominance Test is >50%
	53	= Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:26.5		total cover:	10.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:)		_	<u> </u>	data in Remarks or on a separate sheet)
1 Fragaria vesca	40	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Lycopodium clavatum	30	Yes	FAC	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				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
10				m) tall.
11.				Harb All berbasseus (non woody) plants, regardless
	70	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35		total cover:	14	
Woody Vine Stratum (Plot size: 30 )		_		Woody vine – All woody vines greater than 3.28 ft in
1 Parthenocissus quinquefolia	18	Yes	FACU	height.
2 Toxicodendron radicans	4	No	FAC	
3. Smilax rotundifolia	4	No	FAC	
3. Offinax Foturianona	<u> </u>			
4				Hydrophytic
5				Vegetation
		= Total Cove		Present? Yes No
50% of total cover:13	20% of	total cover:_	5.2	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the depth	needed to document the indicat	or or confirm t	he absence o	findicators.)
Depth	Matrix		Redox Features			
(inches) 0-4	Color (moist) 10YR 3/2	100	Color (moist) % Type	e <sup>1</sup> Loc <sup>2</sup>	Texture SL	Remarks
4-10	10YR 4/3	100			SCL	
10-22	10YR 5/6	100			SCL	
		etion, RM=R	educed Matrix, MS=Masked Sand	Grains. 2		Pore Lining, M=Matrix.  prs for Problematic Hydric Soils <sup>3</sup> :
Hydric Soil			D 1 0 ( (07)			•
Histosol			Dark Surface (S7)	\		m Muck (A10) (MLRA 147)
	pipedon (A2) istic (A3)		Polyvalue Below Surface (S8			ast Prairie Redox (A16)
	en Sulfide (A4)		<ul><li>Thin Dark Surface (S9) (MLR</li><li>Loamy Gleyed Matrix (F2)</li></ul>	A 147, 140)		MLRA 147, 148) dmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)			MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)			y Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)			er (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depressions (F8)			
	Mucky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F1:	2) <b>(LRR N,</b>		
	A 147, 148)		MLRA 136)			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA			ators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Floodplain Soils (F			and hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (M	LRA 127, 147)	unles	ss disturbed or problematic.
	Layer (if observed):					
Type: no			<del>_</del>			
	ches):		<u> </u>		Hydric Soil P	resent? Yes No
Remarks:						



Photo 1 Upland data point waua061\_u facing east



Photo 2 Upland data point waua061\_u facing west

Project/Site: Atlantic Coast Pipeli	ine	City/County: Augusta County			Sampling Date: 1/14/2016		
Applicant/Owner: Dominion		State: VA			Sampling Point: waua062f_w		
Investigator(s): GB, SA		on, Township, Range: No	PLSS in this area				
Landform (hillslope, terrace, etc.)	depression	Local reli	ef (concave, convex, nor	ne): concave			
Subregion (LRR or MLRA): N	Lat:	37.95267574	Long: <u>-78.9</u>	95497548	Datum: WGS 1984		
Soil Map Unit Name: Craigsville	fine sandy loam			NWI classifica	tion: None		
Are climatic / hydrologic condition	ns on the site typical fo						
Are Vegetation . Soil	. or Hydrology	significantly distur	bed? Are "Normal	Circumstances" pr	esent? Yes 🗸 No		
		significantly disturbed? Are "Normal Circumstances" present? Yes No naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS							
				<u> </u>			
Hydrophytic Vegetation Present Hydric Soil Present?	t? Yes <u>/</u>	No	Is the Sampled Area				
Wetland Hydrology Present?			within a Wetland?	Yes	No		
Remarks:	100						
wetland is closest NCWAM cate	gory.						
HYDROLOGY							
Wetland Hydrology Indicators					ors (minimum of two required)		
Primary Indicators (minimum of	•			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)			
Surface Water (A1)		True Aquatic Plants ( Hydrogen Sulfide Od					
High Water Table (A2)			Drainage Patt				
Saturation (A3) Water Marks (B1)		es on Living Roots (C3)	Moss Trim Lin				
Sediment Deposits (B2)		Presence of Reduced Recent Iron Reduction		Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Drift Deposits (B3)		Thin Muck Surface (C		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer		Stunted or Stressed Plants (D1)			
Iron Deposits (B5)		✓ Geomorp					
Inundation Visible on Aerial	I Imagery (B7)	Shallow A			* *		
✓ Water-Stained Leaves (B9)					hic Relief (D4)		
Aquatic Fauna (B13)		FAC-Neu			est (D5)		
Field Observations:							
Surface Water Present?	Yes No						
Water Table Present?	Yes No	Depth (inches):	14				
	Yes No	Depth (inches):	Wetland H	Hydrology Present? Yes No			
(includes capillary fringe)  Describe Recorded Data (stream	m gauge monitoring w	rell aerial photos pre	vious inspections) if ava	ilahle:			
Describe Resoraca Data (Stream	in gaage, monitoring w	cii, acriai priotos, pro	vious inopositorio), ii ava	mabic.			
Remarks:							

/EGETATION (Four Str	ata) – U	se scientific n	ames of	plants.		Sampling Point: waua062f_w
			Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:	30	)	% Cover 30	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2. Carya ovata			15	Yes	FACU	
3						Total Number of Dominant
5 1			-			Species Across All Strata: (B)
٠						Percent of Dominant Species That Are OBL FACW or FAC: 75 (A/B)
5						That Are OBL, FACW, or FAC: (A/B)
6			-	·		Prevalence Index worksheet:
7			45	T		Total % Cover of: Multiply by:
	E00/ of	f total cover: 22.		= Total Cover:	^	OBL species $0   x 1 = 0$
Capling/Chrub Ctratum (Dlate		15 ,	20% 01	ioiai covei.		FACW species 0 x 2 = 0
<u>Sapling/Shrub Stratum</u> (Plot : <sub>1.</sub> Nyssa sylvatica	size	)	15	Yes	FAC	FAC species 50 x 3 = 150
2. Carpinus caroliniana			5	Yes	FAC	FACU species15 x 4 =60
					170	UPL species $0 \times 5 = 0$
3				· ——		Column Totals: 65 (A) 210 (B)
4				·		(A)(B)
5						Prevalence Index = B/A = 3.23
6						Hydrophytic Vegetation Indicators:
7		_		·		1 - Rapid Test for Hydrophytic Vegetation
8						✓ 2 - Dominance Test is >50%
9						3 - Prevalence Index is ≤3.0 <sup>1</sup>
		40		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
		f total cover:10	20% of	total cover:	4	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5	)				Problematic Hydrophytic Vegetation (Explain)
1						Problematic Trydrophytic Vegetation (Explain)
2						The disease of headring and continued be about any according
3						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4						Definitions of Four Vegetation Strata:
5						_
6						Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7						more in diameter at breast height (DBH), regardless of height.
8						
9.						Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.						m) tall.
11.			-			
			0	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	50% of	f total cover: 0		total cover:	_	or size, and woody plante loss than size it tail.
Woody Vine Stratum (Plot siz		30			-	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
		/				height.
1 2						
_				· ——		
4. <u> </u>				· <del></del>		Hydrophytic
5						Vegetation Present? Yes No
	E00/ of	f total cover: 0		= Total Cove	^	100 <u> </u>
				total cover:		
Remarks: (Include photo num		•	,	:		and the same and
no vines rooted within bounda	ry, nerbace	eous layer is dorm	ant and ther	re are no ide	ntiliable re	emnants present

Profile Desc	ription: (Describe to	o the dep	th needed to docum	nent the ir	ndicator	or confirm	the absence	of indicators.)	
Depth	Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-6	10YR 2/1	100					SIL		
6-18	10YR 5/2	65	10YR 5/8	35	С	PL/M	SICL		
1							2		
	oncentration, D=Deple	etion, RM=	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indica	ators for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Dark Surface					cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel				<b>148)</b> C	coast Prairie Redox (A16)	
Black His			Thin Dark Su			47, 148)		(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye		<sup>-</sup> 2)		P	riedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	6)		V	ery Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		C	Other (Explain in Remarks)	
Thick Da	rk Surface (A12)		Redox Depre						
	lucky Mineral (S1) <b>(L</b> l	RR N,	Iron-Mangane		es (F12) (	LRR N,			
MLRA	147, 148)		MLRA 136	6)					
Sandy G	leyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	. <b>8)</b> we	etland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	1aterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> un	less disturbed or problematic.	
	ayer (if observed):								
Type: noi	ne								
Depth (inc							Hydric Soil	Present? Yes No	
Remarks:	,								
rtomanto.									



**Photo 1**Wetland data point WAUA062f\_w facing northeast



**Photo 2**Wetland data point WAUA062f\_w facing southwest

Project/Site: Atlantic Coast Pi	peline		City/0	County: Augusta County		Sampling Date: 1/14/2016
Applicant/Owner: Dominion						Sampling Point: waua062_u
Investigator(s): GB, SA				on, Township, Range: No		
Landform (hillslope, terrace, e						
						Datum: WGS 1984
Soil Map Unit Name: Craigsvi						
Are climatic / hydrologic condi			-			
Are Vegetation, Soil	, or Hydrolog	ysigi	nificantly distu	rbed? Are "Normal	Circumstances" p	present? Yes No
Are Vegetation, Soil	, or Hydrolog	y nat	urally problem	atic? (If needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDIN	IGS – Attach s	ite map sh	nowing san	npling point location	ns, transects	, important features, etc.
Hydrophytic Vegetation Pres	cont? Voc	No_	<b>V</b>			
Hydric Soil Present?		No_		Is the Sampled Area		🗸
Wetland Hydrology Present?	Yes	No_	<b>✓</b>	within a Wetland?	Yes	No
Remarks:						
Upland data point for a satura	acc to temperating		Trougant 100at	od in a localizada dopredan	517 G11 G 11GL	
HYDROLOGY						
Wetland Hydrology Indicat	ors:				Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum	of one is required:				Surface Soil	, ,
Surface Water (A1)			quatic Plants			getated Concave Surface (B8)
High Water Table (A2)			gen Sulfide Od		Drainage Pa	
Saturation (A3)					Moss Trim L	
Water Marks (B1)			nce of Reduce			Water Table (C2)
Sediment Deposits (B2)				on in Tilled Soils (C6)	Crayfish Bur	
Drift Deposits (B3) Algal Mat or Crust (B4)			luck Surface ( (Explain in Re			isible on Aerial Imagery (C9) tressed Plants (D1)
Iron Deposits (B5)		Other	(Lxpiaiii iii ite	marks)		Position (D2)
Inundation Visible on Ae	erial Imagery (B7)				Shallow Aqu	
Water-Stained Leaves (	,					aphic Relief (D4)
Aquatic Fauna (B13)	,				FAC-Neutral	• • • •
Field Observations:						
Surface Water Present?	Yes No	<b>∠</b> Depth	(inches):			
Water Table Present?	Yes No	<b>∠</b> Depth	(inches):			
Saturation Present?	Yes No	<b>✓</b> Depth	(inches):	Wetland H	lydrology Preser	nt? Yes No
(includes capillary fringe)  Describe Recorded Data (str	ream gauge monitu	oring well ae	rial photos pre	evious inspections) if ava	ilahle:	
Describe Necorded Data (Str	cam gauge, monte	oning wen, ac	nai priotos, pro	evious irispections), ii ava	madic.	
Remarks:						
no hydrology indicators prese	ent					

#### **VEGETAT**

									waua062_	
0	30	`	Absolute	Dominant		Dominance Tes	st worksheet	t:		
ree Stratum (Plot size:	30	_)	<u>% Cover</u> 25	Species?		Number of Domi	inant Species	s		
. Nyssa sylvatica				Yes	FAC	That Are OBL, F	ACW, or FA	C:	3	_ (A)
Carya ovata			25	Yes	FACU	Total Number of	Dominant			
Carya cordiformis			10	No	FACU	Total Number of Species Across			8	(B)
Liriodendron tulipifera			5	No	FACU	Openies / toross	7 III Ottata.			_ (D)
·						Percent of Domi			27.5	
				·		That Are OBL, F	ACW, or FA	C:	37.5	_ (A/B
•				·		Prevalence Inde	ex workshee	et.		
<del>-</del>						Total % Cov			ultiply by:	
				= Total Cove			n .		ultiply by:	
		al cover: 32	2.5 20% of	total cover:	13	OBL species		x 1 =	0	_
apling/Shrub Stratum (Plot siz	ze:1	5)				FACW species		x 2 =		_
Nyssa sylvatica			10	Yes	FAC	FAC species	40	x 3 =		_
Acer rubrum			5	Yes	FAC	FACU species	64	x 4 =		_
Kalmia latifolia			4	Yes	FACU	UPL species	0	x 5 =	0	
Carya cordiformis			4	Yes	FACU	Column Totals:	104	(A)	376	(B)
			4	Yes	FACU			_ (, ,		(=)
Carya ovata			<u>_</u>	· ———		Prevalence	e Index = B/	A =	3.61	
Magnolia acuminata			_ 3	No	FACU	Hydrophytic Ve				
Betula lenta			3	No			9			
					FACU	1 - Ranid Te	et for Hydro	nhytic V	/enetation	
				·	FACU	-	est for Hydro		egetation/	
			_	·	FACU	2 - Dominar	nce Test is >	50%	egetation/	
						2 - Dominar 3 - Prevalen	nce Test is >	50% ≤3.0¹		
			33	= Total Cove	er	2 - Dominar 3 - Prevalen	nce Test is >	50% ≤3.0¹		ıpportin
	50% of tot	al cover:16	33	= Total Cove	er	2 - Dominar 3 - Prevalen 4 - Morphole	nce Test is >t nce Index is ≤ ogical Adapta	50% ≤3.0 <sup>1</sup> ations¹ (	(Provide su	
l	50% of tot		33	= Total Cove	er	2 - Dominar 3 - Prevalen 4 - Morpholo data in R	nce Test is > nce Index is ≤ ogical Adapta Remarks or o	50% ≦3.0 <sup>1</sup> ations¹ ( n a sepa	(Provide su	t)
l Herb Stratum (Plot size:	50% of tot 5	al cover:16	33 3.5 20% of	= Total Cover:	er	2 - Dominar 3 - Prevalen 4 - Morphole	nce Test is > nce Index is ≤ ogical Adapta Remarks or o	50% ≦3.0 <sup>1</sup> ations¹ ( n a sepa	(Provide su	t)
l <u>erb Stratum</u> (Plot size:	50% of tot 5	al cover:16 _)	33 20% of	= Total Cover:	er	2 - Dominar 3 - Prevalen 4 - Morpholo data in R	nce Test is > nce Index is ≤ ogical Adapta Remarks or o	50% ≦3.0 <sup>1</sup> ations¹ ( n a sepa	(Provide su	t)
Herb Stratum (Plot size:	50% of tot 5	al cover:16 _)	33 3.5 20% of	= Total Cover:	er	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic	nce Test is > toce Index is ≤ ogical Adapta Remarks or or or Hydrophytic dric soil and	50%  ≤3.0¹ ations¹ ( n a sepa vegeta	(Provide su arate shee ation <sup>1</sup> (Expl	t) ain)
Herb Stratum (Plot size:  s	50% of tot 5	al cover:16 _)	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle	nce Test is >6 nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> (  n a sepantic Vegeta  wetlance or prob	(Provide su arate shee ation <sup>1</sup> (Expl I hydrology lematic.	t) ain)
Herb Stratum (Plot size:	50% of tot 5	al cover:16 _)	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic	nce Test is >6 nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> (  n a sepantic Vegeta  wetlance or prob	(Provide su arate shee ation <sup>1</sup> (Expl I hydrology lematic.	t) ain)
lerb Stratum (Plot size:	50% of tot 5	al cover:16 _)	33 3.5 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle	nce Test is > to ce Index is ≤ ogical Adapta temarks or one Hydrophytic dric soil and ss disturbed four Vegetat	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> (  n a separate Vegeta  wetland or prob	(Provide suarate sheet s	t) ain) must
 lerb Stratum (Plot size:  	50% of tot 5	al cover:16 _)	33 3.5 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic   Indicators of hybe present, unle  Definitions of F  Tree – Woody p	nce Test is > to ce Index is ≤ ogical Adapta temarks or out Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> (  n a separate Vegeta  wetland or prob	(Provide suarate sheet attion (Explusive Internation) (Explusive Internation) (Provided Int	t) ain) must 6 cm) o
lerb Stratum (Plot size:	50% of tot 5	al cover:16 _ )	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic   Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete	nce Test is > to ce Index is ≤ ogical Adapta temarks or out Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> (  n a separate Vegeta  wetland or prob	(Provide suarate sheet attion (Explusive Internation) (Explusive Internation) (Provided Int	t) ain) must 6 cm) o
lerb Stratum (Plot size:	50% of tot 5	al cover: 16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.	nce Test is > { nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed Four Vegetat lants, exclud r at breast he	50% s3.0¹ ations¹ ( n a sepse Vegeta wetland or prob sion Stra ling vine	(Provide su arate shee ation <sup>1</sup> (Expl I hydrology lematic. ata: es, 3 in. (7.0 BH), regard	t) ain) must 6 cm) o
lerb Stratum (Plot size:	50% of tot 5	al cover: 16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub	nce Test is >6 nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he Woody plan	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> ( in a separate vegetar  wetland or prob  cion Straing vine eight (D  ints, exc	(Provide su arate sheet ation <sup>1</sup> (Expl I hydrology lematic. ata: es, 3 in. (7.0 BH), regard	t) ain) must 6 cm) odless of
derb Stratum (Plot size:	50% of tot 5	al cover: 16	33 3.5 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a	nce Test is >6 nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he Woody plan	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> ( in a separate vegetar  wetland or prob  cion Straing vine eight (D  ints, exc	(Provide su arate sheet ation <sup>1</sup> (Expl I hydrology lematic. ata: es, 3 in. (7.0 BH), regard	t) ain) must 6 cm) o dless of
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 3.5 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub	nce Test is >6 nce Index is ≤ nogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he Woody plan	50%  \$3.0 <sup>1</sup> ations <sup>1</sup> ( in a separate vegetar  wetland or prob  cion Straing vine eight (D  ints, exc	(Provide su arate sheet ation <sup>1</sup> (Expl I hydrology lematic. ata: es, 3 in. (7.0 BH), regard	t) ain) must 6 cm) odless of
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba	nce Test is > to ce Index is ≤ ogical Adapta temarks or or centre Hydrophytic dric soil and ss disturbed four Vegetat lants, excluding at breast head of the Hydrophytic lants, excluding the hydrophytic lants at breast head of the land greater the laceous (non-tage).	50%  \$3.0¹ ations¹ ( n a sepa Vegeta  wetlance or prob tion Stra  ling vine eight (D  nts, excentan or e	(Provide suarate sheet stion (Explain Indicate) I hydrology lematic.  ata:  es, 3 in. (7.4 BH), regard squal to 3.2 plants, reg	t) dain) must 6 cm) or dless of
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub - than 3 in. DBH a m) tall.	nce Test is > to ce Index is ≤ ogical Adapta temarks or or centre Hydrophytic dric soil and ss disturbed four Vegetat lants, excluding at breast head of the Hydrophytic lants, excluding the hydrophytic lants at breast head of the land greater the laceous (non-tage).	50%  \$3.0¹ ations¹ ( n a sepa Vegeta  wetlance or prob tion Stra  ling vine eight (D  nts, excentan or e	(Provide suarate sheet stion (Explain Indicate) I hydrology lematic.  ata:  es, 3 in. (7.4 BH), regard squal to 3.2 plants, reg	t) dain) must 6 cm) or dless of
derb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) o dless of
derb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – All	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) o dless of
Herb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) o dless of
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 20% of 6	= Total Cover: total cover:  = Total Cover: total cover: Yes	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – All	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) oldless of es, less 8 ft (1
Herb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover: total cover:  = Total Cover: total cover: Yes	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – All	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) oldless of es, less 8 ft (1
Herb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover: total cover:  = Total Cover: total cover: Yes	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – All	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) oldless of es, less 8 ft (1
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub - than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – A height.	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetlanc or prob ion Str. ling vine eight (D nts, exc nan or e woody) s than 3	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) oldless of es, less 8 ft (1
lerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover:	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – All	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetland or prob ion Str. ling vine eight (D nts, exchan or e woody) s than 3 es great	(Provide suarate sheet atton 1 (Explain the sheet atton 1 (Explain the sheet atton 1 (Explain the sheet attain the sheet attain to 3.2 plants, reg 3.28 ft tall. ter than 3.2	t) lain) must 6 cm) o dless of
derb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover: total cover:  Total Cover:  Total Cover: Yes	er 6.6	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – A height.	nce Test is > { nce Index is ≤ pogical Adapta Remarks or or Hydrophytic dric soil and ss disturbed four Vegetat lants, exclud r at breast he — Woody plan and greater th aceous (non- dy plants les	50% s3.0¹ ations¹ ( n a sep: Vegeta wetland or prob ion Str. ling vine eight (D nts, exchan or e woody) s than 3 es great	(Provide suarate sheet atton (Explain Hydrology lematic.  ata:  es, 3 in. (7.18 BH), regard to 3.2 plants, reg 3.28 ft tall.	t) lain) must 6 cm) o dless of
Nerb Stratum (Plot size:	50% of tot 5	al cover:16	33 20% of 20% of 20% of 6	= Total Cover:  = Total Cover:  = Total Cover:  Yes  = Total Cover:	er 6.6  Part 0  FACU	2 - Dominar 3 - Prevalen 4 - Morpholo data in R Problematic  Indicators of hybe present, unle  Definitions of F  Tree – Woody p more in diamete height.  Sapling/Shrub- than 3 in. DBH a m) tall.  Herb – All herba of size, and woo  Woody vine – A height.  Hydrophytic Vegetation	nce Test is > to nce Index is < to pictal Adaptate Remarks or our Hydrophytic dric soil and ss disturbed four Vegetate lants, excluding at breast hearth of the disturbed are disturbed and greater the disturbed secous (non-tody plants less that woody vine are some secous index of the disturbed secous (non-tody plants less that woody vine are some secous index of the disturbed secous (non-tody plants less that woody vine secous index of the disturbed secous (non-tody plants less that woody vine secous index of the disturbed second second secous index of the disturbed second s	50% s3.0¹ ations¹ ( n a sep: Vegeta wetland or prob ion Str. ling vine eight (D nts, exchan or e woody) s than 3 es great	(Provide suarate sheet atton 1 (Explain the sheet atton 1 (Explain the sheet atton 1 (Explain the sheet attain the sheet attain to 3.2 plants, reg 3.28 ft tall. ter than 3.2	t) lain) must 6 cm) o dless of

US Army Corps of Engineers

Sampling Point: waua062\_u

	cription: (Describe	to the dept				or confirm	the abse	nce of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo:	k Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	e Remarks
0-3	10YR 3/2	100	Color (moist)		туре	LOC	SL	e Remarks
							-	
3-10	10YR 4/3	100					SL	
10-18	10YR 4/4	100					SL	
	-				-			
	· -							
	-							<del></del>
								<u> </u>
Type: C=C	Concentration, D=Dep	pletion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.
	Indicators:							ndicators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)				_ 2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		_	_ Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S				_	_ Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	ce (A11)	Depleted Dar				_	_ Other (Explain in Remarks)
	Park Surface (A12)	I DD N	Redox Depre					
	Mucky Mineral (S1) (	LRR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	<b>A 147, 148)</b> Gleyed Matrix (S4)		MLRA 136 Umbric Surfa	•	MI DA 12	6 122\		<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
-	d Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed)	) <u>:</u>	Red r drene n	iatoriai (i	21) (IIII 211	7. 127, 147	<del>,</del>	different distances of problematic.
Type: _n	one ( observed)	, <u>-</u>						
			<del></del>				Lludria	Soil Present? Yes No
Depth (ir	iches).						пуште	Soli Fresent? Tes No
Remarks:								



Photo 1 Upland data point WAUA062\_u facing northeast



**Photo 2**Upland data point WAUA062\_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/0	County: Augusta County	Sampling Date: 9/24/2016
Applicant/Owner: DOMINION		State	e: VA Sampling Point: waua410e_w
	Secti	on, Township, Range: No PLSS	in this area
Landform (hillslope, terrace, etc.): Seep			
Subregion (LRR or MLRA): N			
Soil Map Unit Name: Lew bouldery silt loam	10 to 45 percent slopes	N	WI classification: None
Are climatic / hydrologic conditions on the sit	e typical for this time of year?	′es No (If no, e	explain in Remarks.)
Are Vegetation, Soil, or Hydr	ology significantly distur	bed? Are "Normal Circur	nstances" present? Yes No
Are Vegetation, Soil, or Hydr			
			ransects, important features, etc.
Hydrophytic Vegetation Present? Y	′es No <b>✓</b>		
Hydric Soil Present?	res No	Is the Sampled Area	Yes No
	es No	within a Wetland?	res No
Unvegetated seep wetland			
HYDROLOGY			
Wetland Hydrology Indicators:		<u>Secor</u>	ndary Indicators (minimum of two required)
Primary Indicators (minimum of one is requ	ired; check all that apply)	S	urface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (	(B14) S	parsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		rainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospher		loss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce		Pry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction		rayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (6 Other (Explain in Re		aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Rei	· —	tunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (E	37)	<del></del>	hallow Aquitard (D3)
Water-Stained Leaves (B9)	,,,		ficrotopographic Relief (D4)
Aquatic Fauna (B13)			AC-Neutral Test (D5)
Field Observations:			. ,
Surface Water Present? Yes	No _ V Depth (inches):		
<u></u>		20	
	No Depth (inches):	4 Wetland Hydrolo	ogy Present? Yes V No No
(includes capillary fringe)		(1000)	
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, pre	evious inspections), if available:	
Remarks:			
Wetland hydrology indicators present			

Absolute Dominant Indic <u>% Cover Species? Sta</u>		0 (A)
	Number of Dominant Species	0 (Δ)
	I nat are OBL, FACW, or FAC:	
		(A)
	Total Number of Dominant	0 (B)
	Species Across All Strata:	(B)
	Percent of Dominant Species	_
	That Are OBL, FACW, or FAC:	0 (A/B)
	Provalence Index worksheet:	
		Multiply by
= Total Cover		Multiply by:
20% of total cover:		
_)		
	Column Totals: (A)	(B)
	Provolence Index - R/A -	
	Trevalence mack = B/TC =	
		vegetation
0	· <del></del>	
	· ·	'
	Problematic Hydrophytic Veget	tation <sup>1</sup> (Explain)
	Definitions of Four Vegetation St	rata:
	Tree – Woody plants, excluding vin	es. 3 in. (7.6 cm) or
	more in diameter at breast height (I	
	height.	
	Sapling/Shrub – Woody plants, ex	cluding vines, less
		equal to 3.28 ft (1
	m) tall.	
	Herb – All herbaceous (non-woody	) plants, regardless
= Total Cover	of size, and woody plants less than	3.28 ft tall.
0 20% of total cover:0		ater than 3 28 ft in
	height.	2101 11011 0.20 11 111
	- Uvdronhviio	
		No
	0 = Total Cover 0 20% of total cover:	Species Across All Strata:    Species Across All Strata:   Percent of Dominant Species That Are OBL, FACW, or FAC:   Prevalence Index worksheet:   Total % Cover of:   M

Profile Des	cription: (Describe t	to the de				or confirm	the absence	e of indicators.)
Depth	Matrix	0/	Redo	x Feature	S1	12	<b>T</b> 4	December 1
(inches) 0-6	Color (moist) 2.5 Y 4/3	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u> SL	Remarks
<u> </u>	2.5 1 4/5						-	_
6-16	5 Y 6/1	80	10 YR 4/6	20	С	PL/M	SCL	_
								<del>-</del> -
	·							
								<u> </u>
		-		-				- ·
	· <del></del>							
								_
<sup>1</sup> Type: C=C	Concentration, D=Depl	letion, RM	1=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:		•					cators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ice (S8) <b>(l</b>	MLRA 147,		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su				· , _	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	•	, .	, ,		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma		` ,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	. ,	<del>-</del> 6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	· (F7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	essions (F	8)			
Sandy	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) (	(LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 1	36, 122)	<sup>3</sup> lr	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	1 <b>8)</b> v	vetland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	<b>7)</b> (	ınless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	nches):						Hydric Sc	oil Present? Yes No
Remarks:	,						1 ,	
lydric soil p	resent							
ry arro con pr								



Photo 1 Wetland data point waua410e\_w facing northeast



Photo 2
Wetland data point waua410e\_w facing southeast

Project/Site: Atlantic Coast Pipeline		City/0	County: Augusta County		Sampling Date: 9/24/2016
Applicant/Owner: DOMINION				State: VA	Sampling Point: waua410_u
		Secti	on, Township, Range: No	PLSS in this area	a
Landform (hillslope, terrace, etc.): Hill Slope					
Subregion (LRR or MLRA): N					
Soil Map Unit Name: Lew bouldery silt loam	, 10 to 45 percent	slopes		NWI classific	cation: None
Are climatic / hydrologic conditions on the si	te typical for this ti	ime of year? \	res No (	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydi	rologysigi	nificantly distu	rbed? Are "Normal	Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydi					
SUMMARY OF FINDINGS – Attac					
Hydrophytic Vegetation Present?	/es No_	<u> </u>			
	res No_ /es No_		Is the Sampled Area	.,	🗸
	/es No_		within a Wetland?	Yes	No
Remarks:		<u> </u>			
LIVERSI SOV					
HYDROLOGY				0	
Wetland Hydrology Indicators:		. t			ators (minimum of two required)
Primary Indicators (minimum of one is requ				Surface Soil	
Surface Water (A1)		quatic Plants ( gen Sulfide Od			getated Concave Surface (B8)
High Water Table (A2) Saturation (A3)					atterns (B10)
Water Marks (B1)		nce of Reduce			Water Table (C2)
Sediment Deposits (B2)			on in Tilled Soils (C6)	Crayfish Bur	
Drift Deposits (B3)		luck Surface (			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		(Explain in Re			Stressed Plants (D1)
Iron Deposits (B5)	, <del></del>		,	Geomorphic	Position (D2)
Inundation Visible on Aerial Imagery (I	37)			Shallow Aqu	uitard (D3)
Water-Stained Leaves (B9)				Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	l Test (D5)
Field Observations:	_				
	No Depth				
	No V Depth				
Saturation Present? Yes (includes capillary fringe)	No Depth	(inches):	Wetland H	lydrology Prese	nt? Yes No
Describe Recorded Data (stream gauge, n	nonitoring well, ae	rial photos, pre	evious inspections), if ava	ilable:	
Demode					
Remarks:  No wetland hydrology indicators present					
No wettand flydrology indicators present					

Sampling	Point: waua410_	_u
Sambling	Point: wada-10-	

20	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Quercus montana	40	Yes	UPL	That Are OBL, FACW, or FAC: (A)
2. Quercus rubra	15	Yes	FACU	Total New Long ( Descious)
3. Acer rubrum	15	Yes	FAC	Total Number of Dominant Species Across All Strata:  6 (B)
4				Openies / toross / tir etrata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 33.33333333 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 35	20% of	total cover:_	14	ODL species X I =
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1 Lindera benzoin	10	Yes	FAC	FAC species25
2. Pinus strobus	5	Yes	FACU	FACU species 20 x 4 = 80
				UPL species 47 x 5 = 235
3				92 300
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 4.23
6				Trevalence index = b/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 7.5	20% of	total cover:_	3	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1 Quercus montana	7	Yes	UPL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
"				
2				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				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
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	7 .	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3.5		total cover:_		or orac, and woody praint root than orac it tam
0070 01 total 00001:	20 /0 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1		-		
2				
3				
4				
5.				Hydrophytic
o	0	<del></del>		Vegetation Present? Yes No
50% of total cover: 0		= Total Cove	r 0	100 NO
30 % of total cover		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			
				I

Sampling Point: waua410\_u

Profile Des	cription: (Describe t	the depth				or confirm	the abs	ence of indicators.)
Depth	Matrix		Redo	x Feature:	S1	1 - 2	<b>.</b>	
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Textu</u>	re Remarks
0-16	2.5 Y 6/8	100					SL	
						· ——		<del></del>
							-	<del></del>
					-		-	
						· ——		
1 <sub>T</sub> 0 0			and and Matrice MC			-:	21 4: -	n. Di Dana Linina M Matrix
	concentration, D=Deplementations:	etion, RIVI=R	educed Matrix, Ms	s=iviasked	Sand Gr	ains.		n: PL=Pore Lining, M=Matrix.  ndicators for Problematic Hydric Soils <sup>3</sup> :
-				(0-)				
Histoso			Dark Surface		/ <del>**</del> = >		-	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148) _	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su	, ,	•	147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		-	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma					(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark S				_	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar				-	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	A 147, 148)		MLRA 13	-				
	Gleyed Matrix (S4)		Umbric Surfa					<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<del>1</del> 8)	wetland hydrology must be present,
Stripped	d Matrix (S6)		Red Parent N	1aterial (F	21) <b>(MLR</b>	A 127, 147	7)	unless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			<u></u>					
Depth (in	iches).		_				Hydric	Soil Present? Yes No
			_				,	
Remarks:	lindiantous uussaut							
no nyaric soi	I indicators present							



Photo 1 Upland data point waua410\_u facing northeast



Photo 2
Upland data point waua410\_u facing southeast

Project/Site: Atlantic Coast Pip	peline		City/County: Augusta		Sampling Date: 5/5/2015
Applicant/Owner: Dominion					Sampling Point: waua053s_w
• •			Section, Township, Range		
Landform (hillslope, terrace, et					
					Datum: WGS 1984
Soil Map Unit Name: Craigsvil	le fine sandv loam	_ Lat	Long.		
Are climatic / hydrologic condit					
					resent? Yes No
Are Vegetation, Soil	, or Hydrolog	y naturally pr	roblematic? (If need	ed, explain any answer	s in Remarks.)
SUMMARY OF FINDIN	GS – Attach s	ite map showing	g sampling point loc	ations, transects	, important features, etc.
Hydrophytic Vegetation Pres	ent? Ves	<b>✓</b> No			
Hydric Soil Present?	Yes	V No_	Is the Sampled A		No
Wetland Hydrology Present?		✓ No	within a Wetland?	r res	NO
Remarks:					
Wetland data point for a satur	ated PSS wetland	located in a draw in	an active pasture; degraded	d stream saua057 flows	s through feature
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum	of one is required	; check all that apply)	1	Surface Soil (	Cracks (B6)
Surface Water (A1)		True Aquatic F	Plants (B14)	Sparsely Veg	etated Concave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulf		Drainage Pat	terns (B10)
Saturation (A3)			ospheres on Living Roots (	C3) Moss Trim Lii	nes (B16)
Water Marks (B1)		Presence of R	educed Iron (C4)	Dry-Season \	Vater Table (C2)
Sediment Deposits (B2)		Recent Iron R	eduction in Tilled Soils (C6)	Crayfish Burr	ows (C8)
Drift Deposits (B3)		Thin Muck Sur			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain	in Remarks)		ressed Plants (D1)
Iron Deposits (B5)				Geomorphic	
Inundation Visible on Ae				Shallow Aqui	, ,
Water-Stained Leaves (E	39)			Microtopogra	
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:		4			
Surface Water Present?		Depth (inches			
Water Table Present?		Depth (inches	s):		
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches	s): Wetla	nd Hydrology Presen	t? Yes No
Describe Recorded Data (str	eam gauge, monito	oring well, aerial phot	tos, previous inspections), i	f available:	
_					
Remarks:					

	imes of	p.a		Sampling Point: waua053s_w
	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:30 )  1. Juglans nigra			Status FACU	Number of Dominant Species
2. Acer rubrum	2	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 2.5	20% of	total cover:_	1	OBL species
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1. Alnus serrulata	60	Yes	OBL	FAC species X3 =
2 <sub>.</sub> Rosa multiflora	3	No	FACU	FACU species x 4 =
3. Lindera benzoin	2	No	FAC	UPL species x 5 =
4				Column Totals:155 (A)276 (B)
5				Prevalence Index = B/A = 1.78
6				1 Tevalence index = B/TC =
7				Hydrophytic Vegetation Indicators:
B				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
<u> </u>	65	= Total Cove	,	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: <u>32.5</u>		total cover:	13	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5 )				data in Remarks or on a separate sheet)
1 Impatiens capensis	50	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. Thalictrum dioicum	10	No	FAC	
3. Angelica atropurpurea	10	No	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Schedonorus arundinaceus	5	No	FACU	be present, unless disturbed or problematic.
5. Holcus lanatus	5	No No		Definitions of Four Vegetation Strata:
			FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Glyceria striata	5	No	OBL	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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	85	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
				of size, and woody plants less than 5.20 it tall.
50% of total cover: 42.5		total cover:_		
50% of total cover: 42.5  Woody Vine Stratum (Plot size: 30 )		total cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)	20% of			
Woody Vine Stratum (Plot size:) 1	20% of			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:30)  12	20% of			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum         (Plot size:	20% of			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:30)  1234	20% of			Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic
Woody Vine Stratum         (Plot size:	20% of		17	Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation
Woody Vine Stratum (Plot size:30)  1234	20% of		17	Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic

Profile Des	cription: (Describe	to the dept				or confirm	the abse	ence of indicators.)			
Depth	Matrix		Redo	K Features	S1	. ,	_				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Textur</u>	re Remarks			
0-6	7.5YR 2.5/1	100					L				
6-18	7.5YR 3/1	100					L				
	-										
		·					-				
		· ——			-		-				
¹Type: C=C	Concentration, D=Dep	letion RM=	Reduced Matrix MS	S=Masked	I Sand Gr	ains	<sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.			
	Indicators:	iction, rawi–	reduced Matrix, Me	- Masket	oana or	uiiio.		ndicators for Problematic Hydric Soils <sup>3</sup> :			
Histoso			Dark Surface	(\$7)				2 cm Muck (A10) <b>(MLRA 147)</b>			
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) <b>(N</b>	/II RΔ 147	148)	Coast Prairie Redox (A16)			
	listic (A3)		Tolyvalde Be				140) _	(MLRA 147, 148)			
	en Sulfide (A4)		Loamy Gleye	, ,	•	147, 140)		Piedmont Floodplain Soils (F19)			
	ed Layers (A5)		Depleted Mat		1 2)		_	(MLRA 136, 147)			
	uck (A10) (LRR N)		Redox Dark \$		·6)			Very Shallow Dark Surface (TF12)			
	ed Below Dark Surface	e (A11)	Depleted Dar				_	Other (Explain in Remarks)			
	ark Surface (A12)	· (, )					_				
	Mucky Mineral (S1) (L	RR N.	Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N,								
	A 147, 148)	<b>,</b>	MLRA 13		() (	,					
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)  3Indicators of hydrophytic vegetation and								
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,								
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.			
	Layer (if observed):					<u> </u>	Í	•			
Type: no	one										
Depth (ir							Hydric	Soil Present? Yes No			
Remarks:							,				
Remarks.											



Photo 1 Wetland data point WAUA053s\_w facing east



Photo 2
Wetland data point WAUA053s\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Augusta	Sampling Date: 5/5/2015			
Applicant/Owner: Dominion		State: VA Sampling Point: waua053_u			
	Section, Township, Range: No				
	Local relief (concave, convex, non				
	Lat: 37.9353012 Long: -78.9				
Soil Map Unit Name: Craigsville fine sandy loam		NWI classification: None			
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes No (				
	significantly disturbed? Are "Normal				
	naturally problematic? (If needed, e				
	te map showing sampling point locatio				
		<u> </u>			
	No Is the Sampled Area within a Wetland?	.,			
	No within a Wetland?	Yes No			
Remarks:	140				
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required;		Surface Soil Cracks (B6)			
Surface Water (A1)		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
Saturation (A3)	0.111 1.011 1.11 1.11 1.11 1.11 1.11 1.	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)				
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)			
Aquatic Fauna (B13)		FAC-Neutral Test (D5)			
Field Observations:  Surface Water Present? Yes No	V Doroth (inches)				
	Depth (inches):				
	Depth (inches): Wetland H	outstand and Burnary 10. Very			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wetland H	ydrology Present? Yes No			
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspections), if avai	lable:			
Remarks:					
no hydrology indicators present					
no nyarology maioatoro present					

Cover	Dominant I Species?	ndicator	
	Species?		Dominance Test worksheet:
		Status	Number of Dominant Species
			That Are OBL, FACW, or FAC:0 (A)
			Total Number of Dominant
			Species Across All Strata: 2 (B)
			Percent of Dominant Species
			That Are OBL, FACW, or FAC:0 (A/B)
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
=		_	OBL species0 x 1 =0
20% of	total cover:_		FACW species $\begin{array}{c} 0 \\ \end{array}$ $\begin{array}{c} x 2 = 0 \\ \end{array}$
10	Ves	FACII	FAC species5
			FACU species 91 x 4 = 364
	-	1700	UPL species $\frac{10}{x^5} = \frac{50}{x^5}$
			Column Totals: 106 (A) 429 (B)
			(A)(D)
			Prevalence Index = B/A =4.04
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
12			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		r 2.4	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
20% 01	total cover:_		data in Remarks or on a separate sheet)
60	Vac	FACII	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		$\overline{}$	
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
			Definitions of Four Vegetation Strata:
			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
			more in diameter at breast height (DBH), regardless of
<del>-</del>		TACO	height.
			Sapling/Shrub – Woody plants, excluding vines, less
			than 3 in. DBH and greater than or equal to 3.28 ft (1
			m) tall.
0/1			Herb – All herbaceous (non-woody) plants, regardless
			of size, and woody plants less than 3.28 ft tall.
20% 01	total cover:_	10.0	Woody vine - All woody vines greater than 3.28 ft in
			height.
			Hydrophytic
			Vegetation
			Present? Ves No
	= Total Cove total cover:_	^	Present? Yes No
	0 = 20% of 10 2 = 20% of 60 10 5 5 5 4 = 94 = 20% of 60 10 10 10 10 10 10 10 10 10 10 10 10 10	0 = Total Cove 20% of total cover:_  10	0 = Total Cover 20% of total cover: 0  10 Yes FACU 2 No FACU  12 = Total Cover 2.4  60 Yes FACU 10 No FACU 5 No UPL 5 No FACU 5 No FACU 5 No FACU 60 Yes FACU 10 No FACU 10 FACU

Sampling Point: waua053\_u

SOIL

Depth	Matrix		Redox Features	<del></del>	
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc		Remarks
0-9	7.5YR 4/3	100		SCL	
9-20	7.5YR 4/4	100		SCL	
		<u> </u>			
					<del>.</del> .
	-				
Tuno: C C	anaantration D Dan	lation DM D	advect Metrix MC Mesked Cond Crains	21 continue [	D. Doro Lining M. Motriy
	Indicators:	netion, Rivi=R	educed Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils <sup>3</sup> :
-			D 1 0 ( (OT)		
Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	—	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	!	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)	(	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)		
	Mucky Mineral (S1) (I	LRR N,	Iron-Manganese Masses (F12) (LRR N	١,	
	A 147, 148)		MLRA 136)	. 3.	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122		dicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR.		retland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127)	, <b>147)</b> ui	nless disturbed or problematic.
	Layer (if observed):	:			
Type: no	one		<u> </u>		_
Depth (in	ches):		<u> </u>	Hydric Soi	il Present? Yes No 💆
Remarks:					



Photo 1 Upland data point WAUA053\_u facing south



Photo 2 Upland data point WAUA053\_u facing west

Project/Site: Atlantic Coast Pip	oeline		City/0	County: Augusta		Sampling Date: 5/5/2015		
Applicant/Owner: Dominion			,			Sampling Point: waua052e_w		
Investigator(s): GB, SA			Sect					
Landform (hillslope, terrace, et								
						Datum: WGS 1984		
Soil Map Unit Name: Craigsvil				Long				
•								
Are climatic / hydrologic condit								
Are Vegetation, Soil	, or H	ydrology _	significantly distu	rbed? Are "Norma	I Circumstances" p	resent? Yes No		
Are Vegetation, Soil	, or H	ydrology _	naturally problem	atic? (If needed,	explain any answer	s in Remarks.)		
SUMMARY OF FINDIN	GS – Att	ach site	map showing sar	mpling point location	ons, transects,	important features, etc.		
Hydrophytic Vegetation Pres	ent?	Vec 1	/ No					
Hydric Soil Present?	511t:	Yes •	No	Is the Sampled Area	🗸			
Wetland Hydrology Present?			/ No	within a Wetland?	Yes	No		
Remarks:			<u> </u>					
Wetland data point for a satur saua056 & seep which is inclu	ated to tem uded in map	iporarily flo	ooded PEM wetland loca dary provide hydrology.	ited in a swale within a pa	asture; between toe	of slope and road, stream		
HYDROLOGY								
Wetland Hydrology Indicate	ors:				Secondary Indicat	tors (minimum of two required)		
Primary Indicators (minimum	of one is re	equired; ch	eck all that apply)		Surface Soil (	Cracks (B6)		
✓ Surface Water (A1)		=	True Aquatic Plants	(B14)	<ul><li> Sparsely Vegetated Concave Surface (B8)</li><li> Drainage Patterns (B10)</li></ul>			
✓ High Water Table (A2)		_	Hydrogen Sulfide Od	dor (C1)				
Saturation (A3)				res on Living Roots (C3)	Moss Trim Lir			
Water Marks (B1)			Presence of Reduce			Vater Table (C2)		
Sediment Deposits (B2)		-	Recent Iron Reduction		Crayfish Burr			
Drift Deposits (B3)		-	Thin Muck Surface (			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		-	Other (Explain in Re	marks)	Geomorphic I	ressed Plants (D1)		
Iron Deposits (B5) Inundation Visible on Ae	rial Imager	, (R7)				, ,		
Water-Stained Leaves (E	• .	y (D7)			Shallow Aquitard (D3) Microtopographic Relief (D4)			
Aquatic Fauna (B13)	30)				FAC-Neutral			
Field Observations:								
Surface Water Present?	Yes V	, No	Depth (inches):	1				
Water Table Present?			Depth (inches):	0				
Saturation Present?			Depth (inches):	0 Wetland I	Hydrology Present	t? Yes ✔ No		
(includes capillary fringe)						103 <u></u> 110		
Describe Recorded Data (str	eam gauge	, monitorir	ig well, aerial photos, pr	evious inspections), if ava	ailable:			
Remarks:								
checked box for surface wate	r present to	yes. jm 5	/22/15					
	•							

ominance Test worksheet:  umber of Dominant Species nat Are OBL, FACW, or FAC:
that Are OBL, FACW, or FAC:    Stall Number of Dominant Decies Across All Strata:   4   (B)
otal Number of Dominant Decies Across All Strata:  decreent of Dominant Species Part Are OBL, FACW, or FAC:  Total % Cover of:  BL species  ACW species  ACW species  Decrees
percent of Dominant Species nat Are OBL, FACW, or FAC:  Total % Cover of: BL species ACW species ACW species  ACW species  Description AC species  Description ACU species
ercent of Dominant Species nat Are OBL, FACW, or FAC:  Total % Cover of:  BL species  ACW species  AC species  Description  ACU species  Description
revalence Index worksheet:  Total % Cover of: BL species ACW species $\frac{38}{35}$ $\frac{35}{35}$ $\frac{35}{3$
revalence Index worksheet:  Total % Cover of:  BL species 38 x 1 = 38  ACW species 0 x 3 = 0  AC species 0 x 4 = 88  PL species 0 x 5 = 0  olumn Totals: 95 (A) 196 (B)  Prevalence Index = B/A = 2.06  ydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting)
Total % Cover of:  BL species $38$ $x 1 = 38$ ACW species $35$ $x 2 = 70$ AC species $0$ $x 3 = 0$ ACU species $22$ $x 4 = 88$ PL species $0$ $x 5 = 0$ Folumn Totals: $y = 0$
Total % Cover of:  BL species $38$ $x 1 = 38$ ACW species $35$ $x 2 = 70$ AC species $0$ $x 3 = 0$ ACU species $22$ $x 4 = 88$ PL species $0$ $x 5 = 0$ Folumn Totals: $y = 0$
BL species $38 \times 1 = 38$ ACW species $35 \times 2 = 70$ AC species $0 \times 3 = 0$ ACU species $22 \times 4 = 88$ PL species $0 \times 5 = 0$ Folumn Totals: $95 \times 6 = 0$ ACU species $95 \times 6 = 0$ Folumn Totals: $95 \times 6 = 0$ For Example 196 For Example 2.06 For Example 2.06 For Example 2.06 For Example 3.06 For Exa
ACW species $\frac{35}{0}$ x 2 = $\frac{70}{0}$ AC species $\frac{0}{0}$ x 3 = $\frac{0}{0}$ ACU species $\frac{22}{0}$ x 4 = $\frac{88}{0}$ PL species $\frac{0}{95}$ (A) $\frac{196}{0}$ (B) Prevalence Index = B/A = $\frac{2.06}{0}$ Prevalence Test for Hydrophytic Vegetation $\frac{1}{2}$ 2 - Dominance Test is >50% $\frac{1}{2}$ 3 - Prevalence Index is $\leq 3.0^{1}$ 4 - Morphological Adaptations $\frac{1}{2}$ (Provide supporting
AC species $0 \times 3 = 0$ ACU species $22 \times 4 = 88$ PL species $0 \times 5 = 0$ Folumn Totals: $95 \times 6 = 0$ ACU species $95 \times 6 = 0$ Folumn Totals:
ACU species $22$ $x 4 = 88$ PL species $0$ $x 5 = 0$ plumn Totals: $95$ $(A)$ $196$ $(B)$ Prevalence Index = B/A = $2.06$ pdrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
PL species $0$ $x = 5$ $196$
olumn Totals:95
Prevalence Index = B/A =
ydrophytic Vegetation Indicators:  _ 1 - Rapid Test for Hydrophytic Vegetation  _ 2 - Dominance Test is >50%  _ 3 - Prevalence Index is ≤3.0¹  _ 4 - Morphological Adaptations¹ (Provide supporting
_ 1 - Rapid Test for Hydrophytic Vegetation  _ 2 - Dominance Test is >50%  _ 3 - Prevalence Index is ≤3.0¹  _ 4 - Morphological Adaptations¹ (Provide supporting
_ 1 - Rapid Test for Hydrophytic Vegetation  _ 2 - Dominance Test is >50%  _ 3 - Prevalence Index is ≤3.0¹  _ 4 - Morphological Adaptations¹ (Provide supporting
3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
4 - Morphological Adaptations <sup>1</sup> (Provide supporting
details Descendences and the Control of
data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_ , , , , , , , , , , , , , , , , , , ,
ndicators of hydric soil and wetland hydrology must
present, unless disturbed or problematic.
efinitions of Four Vegetation Strata:
ree – Woody plants, excluding vines, 3 in. (7.6 cm) or
ore in diameter at breast height (DBH), regardless of
eight.
apling/Shrub – Woody plants, excluding vines, less
an 3 in. DBH and greater than or equal to 3.28 ft (1
) tall.
erb - All herbaceous (non-woody) plants, regardless
size, and woody plants less than 3.28 ft tall.
oody vine – All woody vines greater than 3.28 ft in
eight.
ydrophytic
egetation resent? Yes
esent? TesNO
<u> </u>

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	7.5YR 4/2	100					SIL	
4-10	7.5YR 4/2	95	7.5YR 4/6	5	С	PL/M	SIL	
10-20	7.5YR 4/1	93	7.5YR 4/6	7	С	PL/M	CL	
Turne: C-C	oncontration D_Do	nlotion DM	=Reduced Matrix, MS		Sand Cr		<sup>2</sup> Location: D	L=Pore Lining, M=Matrix.
	Indicators:	pietion, Kiv	=Reduced Matrix, Mc	=iviaskeu	Sand Gi	all iS.		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(97)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be	. ,	e (S8) <b>(N</b>	II RΔ 147		Coast Prairie Redox (A16)
	istic (A3)		Tolyvalde Be				C	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			,,	P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		-,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		3)		∨	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfa	ce (A11)	Depleted Dar	k Surface	(F7)		<u> </u>	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre	ssions (F8	5)			
	Mucky Mineral (S1)	(LRR N,	Iron-Mangan		s (F12) (	LRR N,		
	A 147, 148)		MLRA 13	-			2	
	Bleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	faterial (F2	21) <b>(MLR</b>	A 127, 147	') un	less disturbed or problematic.
	Layer (if observed	):						
Type: no								./
Depth (in	ches):						Hydric Soil	I Present? Yes No
Remarks:								



Photo 1
Wetland data point WAUA052e\_w facing northwest



**Photo 2**Wetland data point WAUA052e\_w facing northeast

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta		Sampling Date: <u>5/5/2015</u>		
Applicant/Owner: Dominion					Sampling Point: waua052_u		
			on, Township, Range: No				
Landform (hillslope, terrace, etc.): slope				ave, convex, none): none Slope (%): 8			
Subregion (LRR or MLRA): N							
Soil Map Unit Name: Craigsville fine sandy	loam			NWI classifica	ation: None		
Are climatic / hydrologic conditions on the si							
Are Vegetation, Soil, or Hyd							
Are Vegetation, Soil, or Hyd							
SUMMARY OF FINDINGS – Attac							
				,,			
	Yes No_		Is the Sampled Area		,		
	Yes No_ Yes No_		within a Wetland?	Yes	No		
Remarks:	165 110_						
Upland data point taken above toe of slope and road.	in a pastare for a		inportanty needed i Elvi v	vesidina located iii d	wate between too or stope		
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is requ	uired; check all tha	at apply)		Surface Soil Cracks (B6)			
Surface Water (A1)	True <i>F</i>	Aquatic Plants (	B14)	<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>			
High Water Table (A2)		gen Sulfide Odo					
Saturation (A3)			es on Living Roots (C3)	Moss Trim Lir			
Water Marks (B1)	· · · · · · · · · · · · · · · · · · ·	nce of Reduced	` '		Vater Table (C2)		
Sediment Deposits (B2)			n in Tilled Soils (C6)				
Drift Deposits (B3)		/Iuck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other	(Explain in Ren	narks)		ressed Plants (D1)		
Iron Deposits (B5) Inundation Visible on Aerial Imagery (	R7)			Geomorphic F Shallow Aquit			
Water-Stained Leaves (B9)	57)				ohic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral			
Field Observations:							
	No V Depth	n (inches):					
	No V Depth						
	No / Depth			lydrology Present	? Yes No ✔		
(includes capillary fringe)							
Describe Recorded Data (stream gauge, n	nonitoring well, ae	rial photos, pre	vious inspections), if ava	illable:			
Remarks:							
no hydrology indicators present							

0 (A)
0 (A)
(A)
3 (B)
0 (A/B
Multiply by:
(1 =
(2 =
(3 =
< 4 = 460
< 5 = 0
A) <u>475</u> (B)
_ 3.95
<u> </u>
ators:
ytic Vegetation
%
01
ons <sup>1</sup> (Provide supportin
separate sheet)
egetation <sup>1</sup> (Explain)
etland hydrology must
problematic.
n Strata:
y vines, 3 in. (7.6 cm) o
ht (DBH), regardless o
, excluding vines, less
or equal to 3.28 ft (1
ody) plants, regardless
han 3.28 ft tall.
greater than 3.28 ft in
🗸
No

Sampling Point: waua052\_u

SOIL

Depth	Matrix		Redox Features	<del></del>	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type <sup>1</sup> Lo	oc <sup>2</sup> Textu	
0-8	7.5YR 3/3	100		SCL	<u> </u>
8-18	100			SCL	-
		· <u></u>			
		<del></del>			
		·		<u> </u>	
		<del></del>			
	-	<del></del>		<del></del>	
		·			
Type: C=C	oncentration, D=Dep	letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		n: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators:			li	ndicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface (S7)	_	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLR)	A 147, 148)	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Surface (S9) (MLRA 147,		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	,	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)	_	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	<del>-</del>	Other (Explain in Remarks)
_	ark Surface (A12)	,	Redox Depressions (F8)	_	
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Manganese Masses (F12) (LRR	N,	
	A 147, 148)	,	MLRA 136)	,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	22)	<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (ML		wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 12		unless disturbed or problematic.
	Layer (if observed):		rear arent material (i 21) (iii2it) 12	, <i>,</i>	different distribution of problematic.
Type: no					
			<del>_</del>	Hydria	Soil Present? Yes No
Depth (in	unes)		_	пуштс	Soil Present? Yes No
Remarks:					



Photo 1 Upland data point WAUA052\_u facing southwest



**Photo 2**Upland data point WAUA052\_u facing southeast

Project/Site: Atlantic Coast Pip	eline	City/C	county: Augusta		Sampling Date: 5/5/2015		
Applicant/Owner: Dominion				State: VA	_ Sampling Point: waua051e_w		
Investigator(s): GB, SA							
Landform (hillslope, terrace, etc					Slope (%):2		
Subregion (LRR or MLRA): N	Lat:	37.93112273	Long: <u>-</u> 78.9	97644594	Datum: WGS 1984		
Soil Map Unit Name: Craigsville	e fine sandy loam			NWI classifica	tion: None		
Are climatic / hydrologic condition	ons on the site typical fo						
, ,	• •	•		•	esent? Yes No		
Are Vegetation, Soil							
					important features, etc.		
			.pg pe	,			
Hydrophytic Vegetation Prese			Is the Sampled Area				
Hydric Soil Present?		_ No	within a Wetland?	Yes	No		
Wetland Hydrology Present?  Remarks:	Yes	N0					
feature; located in pasture and  HYDROLOGY		rvestook transping.					
				Cocondon/Indicat	are (minimum of two required)		
Wetland Hydrology Indicato		( all that apply)			ors (minimum of two required)		
Primary Indicators (minimum of Surface Water (A1)	•	True Aquatic Plants (	D14)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		✓ Drainage Patt			
Saturation (A3)		-	es on Living Roots (C3)	Moss Trim Lin			
Water Marks (B1)			esence of Reduced Iron (C4)  Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burro	· ·		
Drift Deposits (B3)		Thin Muck Surface (C		· ·	ible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or Str	essed Plants (D1)		
Iron Deposits (B5)				✓ Geomorphic F	Position (D2)		
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquita	ard (D3)		
Water-Stained Leaves (B	9)			<u>✓</u> Microtopograp			
Aquatic Fauna (B13)				FAC-Neutral 1	est (D5)		
Field Observations:	_						
Surface Water Present?	Yes No		14				
Water Table Present?	Yes No		11				
Saturation Present?	Yes No	Depth (inches):	9 Wetland F	lydrology Present	? Yes / No		
(includes capillary fringe)  Describe Recorded Data (stre	am gauge, monitoring v	vell, aerial photos, pre	vious inspections), if ava	ilable:			
,			•				
Remarks:							

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: waua051e_w
20	Absolute			Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30) 1		Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2				
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				Species Across Air Strata (B)
T				Percent of Dominant Species That Are ORL FACW or FAC: 75 (A/R)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
1	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species 42 x 1 = 42
Sapling/Shrub Stratum (Plot size: 15 )	20 /0 01	total cover.		FACW species62
1 Alnus serrulata	12	Yes	OBL	FAC species0 x 3 =0
o Rosa multiflora	7	Yes	FACU	FACU species 15 x 4 = 60
<u> </u>				UPL species 0 x 5 = 0
3				Column Totals: 119 (A) 226 (B)
4				(2)
5				Prevalence Index = B/A =1.89
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
0.5		= Total Cove	er 3.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 9.5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )	20	.,	ODI	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Carex comosa	30	Yes	OBL	
2. Juncus effusus	30	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Impatiens capensis	12	No	FACW	be present, unless disturbed or problematic.
4. Agrimonia parviflora	10	No	FACW	Definitions of Four Vegetation Strata:
5. Schedonorus arundinaceus	8	No	FACU	Trans. Was dead and a supplication of the Control o
6. Mentha spicata	6	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7 <sub>.</sub> Viola cucullata	4	No	FACW	height.
8				Continue/Charle Wandy plants avaluating vines less
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				_
2	_			
3	_			
4	_			Hydrophytic
5				Vegetation
	0	= Total Cove	er	Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate si	heet.)			

Depth	Matrix			x Features			_	_
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-10	7.5YR 4/2	90	7.5YR 4/6	10	C	PL/M	CL	
10-20	7.5YR 4/1	85	7.5YR 4/6	15	С	PL/M	CL	
		· ——						
	-	<del></del>				<del></del>		
Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2	cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	/ILRA 147,		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, , , , ,	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		-,		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Da	,	,			Other (Explain in Remarks)
	ark Surface (A12)	0 (/ ( / )	Redox Depre		. ,		~	Striot (Explain in Normanie)
	Mucky Mineral (S1) <b>(L</b>	RR N	Iron-Mangan			IRRN		
	A 147, 148)	-1111 14,	MLRA 13		75 (I IZ) <b>(</b>			
	Gleyed Matrix (S4)		Umbric Surfa	•	MI DA 13	16 122\	<sup>3</sup> Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					lless disturbed or problematic.
	Layer (if observed):		Red Falelit i	viateriai (F2	ZI) (IVILK	A 121, 141	) un	liess disturbed of problematic.
Type: no								
								./
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point WAUA051e\_w facing northwest



**Photo 2**Wetland data point WAUA051e\_w facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: Augusta	Sampling Date: 5/5/2015		
Applicant/Owner: Dominion		State: VA Sampling Point: waua051_u		
	Section, Township, Range: No			
Landform (hillslope, terrace, etc.): slope				
Subregion (LRR or MLRA): N				
Soil Map Unit Name: Craigsville fine sandy loam		NWI classification: None		
Are climatic / hydrologic conditions on the site typic				
Are Vegetation, Soil, or Hydrology				
Are Vegetation, Soil, or Hydrology				
	e map showing sampling point locatio			
		<u> </u>		
	No V Is the Sampled Area within a Wetland?	.,		
	No_ ✓ within a Wetland?	Yes No		
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; of		Surface Soil Cracks (B6)		
Surface Water (A1)		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Oparisely vegetated concave Surface (Bb) Drainage Patterns (B10)		
Saturation (A3)	0.111 1.011 1	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)		
Aquatic Fauna (B13)		FAC-Neutral Test (D5)		
Field Observations:				
	Depth (inches): 22			
	Depth (inches):			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): 20 Wetland H	ydrology Present? Yes No		
	ng well, aerial photos, previous inspections), if avai	lable:		
Remarks:				
no hydrology indicators present				

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: waua051_u
20	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species That Are OBL FACW or FAC: 1 (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 20 (A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
50% of total cover:		= Total Cover:	er O	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )	20 /6 01	iolai covei.		FACW species 20 x 2 = 40
1 Rosa multiflora	10	Yes	FACU	FAC species0 x 3 =0
2. Symphoricarpos orbiculatus	6	Yes	FACU	FACU species 91 x 4 = 364
				UPL species 0 x 5 = 0
				Column Totals: 111 (A) 404 (B)
4 5.				
				Prevalence Index = B/A =3.63
				Hydrophytic Vegetation Indicators:
7 8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
ə. <u> </u>	16	= Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 8		total cover:	3.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5 )				data in Remarks or on a separate sheet)
1. Schedonorus arundinaceus	30	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Poa pratensis	20	Yes	FACU	
3. Agrimonia parviflora	20	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 Anthoxanthum odoratum	15	No	FACU	be present, unless disturbed or problematic.
5. Dactylis glomerata	10	No	FACU	Definitions of Four Vegetation Strata:
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				more in diameter at breast height (DBH), regardless of height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11				
	95	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover:47.5	20% of	total cover:		
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
				neight.
2		·		
3				
4				Undrambutia
5				Hydrophytic Vegetation
	0	= Total Cove		Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Des	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the abser	nce of indicators.)			
Depth	Matrix		Redo	x Feature:	S1	. 2					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	e Remarks			
0-5	7.5YR 3/3	100					SCL				
5-10	7.5YR 4/4	100					SCL				
10-24	7.5YR 4/6	100			-		SCL				
								<del></del>			
					-						
1- 0.0							21				
	Concentration, D=Deplements:	pletion, RIVI=	Reduced Matrix, MS	s=Masked	Sand Gr	ains.		: PL=Pore Lining, M=Matrix. dicators for Problematic Hydric Soils <sup>3</sup> :			
•			5 1 0 (	(07)			in	•			
Histoso			Dark Surface		(00) (1		4.40\	_ 2 cm Muck (A10) (MLRA 147)			
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)			
	listic (A3)		Thin Dark Su	, ,	•	47, 148)		(MLRA 147, 148)			
	en Sulfide (A4) d Layers (A5)		Loamy Gleye Depleted Material		r <i>2)</i>		_	Piedmont Floodplain Soils (F19)			
	uck (A10) <b>(LRR N)</b>		Redox Dark S		-C)			(MLRA 136, 147)  Very Shallow Dark Surface (TF12)			
	ed Below Dark Surface	co (Δ11)	Depleted Dar				_	Other (Explain in Remarks)			
	ark Surface (A12)	GC (A11)					_				
	Mucky Mineral (S1) (	LRR N.	Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N,								
	A 147, 148)		MLRA 13		00 (1 12) (	Little it,					
	Gleyed Matrix (S4)				MLRA 13	6. 122)	3	<sup>3</sup> Indicators of hydrophytic vegetation and			
	Redox (S5)		<ul> <li>Umbric Surface (F13) (MLRA 136, 122)</li> <li>Piedmont Floodplain Soils (F19) (MLRA 148)</li> <li>wetland hydrology must be present,</li> </ul>								
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.			
	Layer (if observed)	):		(-	/ (	, , , , ,	<u></u>				
Type: _n	one	<i>-</i>									
			<del></del>				Uvdria (	Sail Bracont? Voc. No.			
Depth (ir	iches):						nyaric s	Soil Present? Yes No			
Remarks:											



**Photo 1**Upland data point WAUA051\_u facing southeast



**Photo 2**Upland data point WAUA051\_u facing northwest

Project/Site: Atlantic Coast Pipeline		City/C	County: Augusta County		_ Sampling Date: 11/11/2015
Applicant/Owner: Dominion				_ State: VA	Sampling Point: waue001s_w
			on, Township, Range: No		
Landform (hillslope, terrace, etc.): Slop					
Subregion (LRR or MLRA): N					Datum: WGS 1984
Soil Map Unit Name: Lew bouldery silt		percent slopes		NWI classifi	cation: PUBFh
Are climatic / hydrologic conditions on t	he site typical fo	or this time of year? Y	′es No	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	l Circumstances"	present? Yes No
Are Vegetation, Soil, or					
SUMMARY OF FINDINGS – A					
Hydrophytic Vegetation Present?	Yes 🗸	_ No			
Hydric Soil Present?	Yes V	No	Is the Sampled Area within a Wetland?	Voc. V	No
Wetland Hydrology Present?		No	within a welland:	165	
Seep fed wetland on hillslope.					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is	required; checl	k all that apply)		Surface Soi	l Cracks (B6)
Surface Water (A1)		True Aquatic Plants (			egetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Od		<u>✓</u> Drainage Pa	
Saturation (A3)			es on Living Roots (C3)	Moss Trim I	` '
Water Marks (B1)		Presence of Reduced			Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bu	
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C Other (Explain in Rer			/isible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat of Crust (B4) Iron Deposits (B5)		Other (Explain in Nei	ilaiks)		c Position (D2)
Inundation Visible on Aerial Imag	erv (B7)			Shallow Aqu	
Water-Stained Leaves (B9)	, (,				aphic Relief (D4)
Aquatic Fauna (B13)				✓ FAC-Neutra	
Field Observations:					
Surface Water Present? Yes _	No	Depth (inches):			
Water Table Present? Yes _	<b>✓</b> No	Depth (inches):	0		
		Depth (inches):	0 Wetland H	Hydrology Prese	nt? Yes V No
(includes capillary fringe)  Describe Recorded Data (stream gau	ao monitorina	well parial photos pro	vious inspections) if ave	vilabla:	
Describe Recorded Data (stream gad	ge, monitoring v	veli, aeriai priotos, pre	wious inspections), ii ava	iliable.	
Remarks:					

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:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total % Cover of:  OBL species  15  FACW species  15  FAC species  15  FACU species  16  FACU species  17  FACU species  18  FACU species  19  Column Totals:  10  Frevalence Index = B/A = 2.22   Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹
That Are OBL, FACW, or FAC: 6 (A)  Total Number of Dominant Species Across All Strata: 8 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)  Prevalence Index worksheet:  Total % Cover of: Multiply by: OBL species 35 x 1 = 35  FACW species 15 x 2 = 30  FAC species 25 x 3 = 75  FACU species 15 x 4 = 60  UPL species 0 x 5 = 0  Column Totals: 90 (A) 200 (B)  Prevalence Index = B/A = 2.22  Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation  V 2 - Dominance Test is >50%
Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total % Cover of:  OBL species  15  FACW species  15  FAC species  15  FACU species  16  FACU species  17  FACU species  18  FACU species  19  FACU species  10  FACU species  11  FACU species  12  FACU species  15  FACU species  16  FACU species  17  FACU species  16  FACU species  16  FACU species  16  FACU species  17  FACU species  16  FACU species  17  FACU species  16  FACU species  17  FACU species  16  FACU species  17  FACU specie
Species Across All Strata:       8       (B)         Percent of Dominant Species That Are OBL, FACW, or FAC:       75       (A/B)         Prevalence Index worksheet:         Total % Cover of:       Multiply by:         OBL species       35       x 1 = 35         FACW species       15       x 2 = 30         FAC species       25       x 3 = 75         FACU species       15       x 4 = 60         UPL species       0       x 5 = 0         Column Totals:       90       (A)       200         Column Totals:       B/A       2.22         Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation         ✓ 2 - Dominance Test is >50%
Percent of Dominant Species       75       (A/B)         Prevalence Index worksheet:
That Are OBL, FACW, or FAC:       75       (A/B)         Prevalence Index worksheet:         Total % Cover of:       Multiply by:         OBL species       35       x 1 = 35         FACW species       15       x 2 = 30         FAC species       25       x 3 = 75         FACU species       15       x 4 = 60         UPL species       0       x 5 = 0         Column Totals:       90       (A)       200         Prevalence Index = B/A = 2.22         Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation         ✓ 2 - Dominance Test is >50%
Prevalence Index worksheet:           Total % Cover of:         Multiply by:           OBL species         35         x 1 = 35           FACW species         15         x 2 = 30           FAC species         25         x 3 = 75           FACU species         15         x 4 = 60           UPL species         0         x 5 = 0           Column Totals:         90         (A)         200           Prevalence Index = B/A = 2.22         222           Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation           ✓ 2 - Dominance Test is >50%
Total % Cover of:         Multiply by:           OBL species         35         x 1 = 35           FACW species         15         x 2 = 30           FAC species         25         x 3 = 75           FACU species         15         x 4 = 60           UPL species         0         x 5 = 0           Column Totals:         90         (A)         200           Prevalence Index = B/A = 2.22         222           Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation           ✓ 2 - Dominance Test is >50%
Total % Cover of:         Multiply by:           OBL species         35         x 1 = 35           FACW species         15         x 2 = 30           FAC species         25         x 3 = 75           FACU species         15         x 4 = 60           UPL species         0         x 5 = 0           Column Totals:         90         (A)         200           Prevalence Index = B/A = 2.22         222           Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation           ✓ 2 - Dominance Test is >50%
OBL species 35 x 1 = 35  FACW species 15 x 2 = 30  FAC species 25 x 3 = 75  FACU species 15 x 4 = 60  UPL species 0 x 5 = 0  Column Totals: 90 (A) 200 (B)  Prevalence Index = B/A = 2.22  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  ✓ 2 - Dominance Test is >50%
FACW species
FACW species
FAC species $\begin{array}{c cccc} & x & 3 & = & \\ \hline {\sf FACU} \ {\sf species} & 15 & x & 4 & = & 60 \\ \hline {\sf UPL} \ {\sf species} & 0 & x & 5 & = & 0 \\ \hline {\sf Column} \ {\sf Totals} : & 90 & (A) & 200 & (B) \\ \hline & {\sf Prevalence Index} & = B/A & = & 2.22 \\ \hline {\sf Hydrophytic Vegetation Indicators} : & & & & \\ \hline & 1 - {\sf Rapid Test for Hydrophytic Vegetation} \\ \hline \checkmark & 2 - {\sf Dominance Test is >} 50\% \\ \hline \end{array}$
PACU species
Column Totals: 90 (A) 200 (B)  Prevalence Index = B/A = 2.22  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
Column Totals:90 (A)200 (B)  Prevalence Index = B/A =2.22  Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation  v 2 - Dominance Test is >50%
Prevalence Index = B/A = 2.22  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%
✓ 2 - Dominance Test is >50%
¥ 3 - Drevalence Indox is <2 Ω'
4 - Morphological Adaptations¹ (Provide supporting
data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<sup>1</sup> Indicators of hydric soil and wetland hydrology must
be present, unless disturbed or problematic.
Definitions of Four Vegetation Strata:
-
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of
more in diameter at breast height (DBH), regardless of height.
noight.
Sapling/Shrub – Woody plants, excluding vines, less
than 3 in. DBH and greater than or equal to 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.
Hydrophytic
Vegetation Present? Yes No
Present? Yes No
V h

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redo	x Features					
(inches)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	_
0-2	10YR 2/1	100						Muck	
2-10	10YR 2/1	100					COSL	Mucky mineral, 20 gravel	
									-
									_
(inches)Color (moist)%Color (moist)%Type¹Loc²TextureRemarks0-210YR 2/1100Muck									
Depth (inches) Color (moist) 9 Color (moist) 9 Type¹ Loc² Texture Remarks  0-2 10 10 YR 2/1 100 COSL Mucky mineral, 20 gravel  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Thick Soil Indicators:  Indicators for Problematic Hydric Soils³:  1 Indicators for Problematic Hydric Soils³:  1 Polyvalue Below Surface (S8) (MLRA 147, 148)  1 Polyvalue Below Surface (S8) (MLRA 147, 148)  1 Polyvalue Below Surface (S9) (MLRA 147, 148)  1 Polyvalue Below Surface (S9) (MLRA 147, 148)  1 Polyvalue Below Surface (S9) (MLRA 147, 148)  2 Coast Prairie Redox (A16)  (MLRA 147, 148)  2 Pelemont Floodplain Soils (F19)  (MLRA 136, 147)  2 Very Shallow Dark Surface (TF12)  2 Very Shallow Dark Surface (TF12)  2 Very Shallow Dark Surface (TF12)  2 Polyte (Explain in Remarks)  Thick Dark Surface (A12)  3 Polytera (F13) (MLRA 136, 122)  3 Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type: Coble  Depth (inches): 10  Hydric Soil Present? Yes  No  Polyteral Redox Present Problematic.									
Depth									
								-	-
-	-								
¹Type: C=Co	oncentration, D=Depl	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.	
		•	,						
-			Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)	
					ce (S8) <b>(N</b>	ILRA 147.			
						,,	F		
	, ,				_,			• • • • • • • • • • • • • • • • • • • •	
					6)		V		
		(A11)		•	,				
Thick Da	ark Surface (A12)								
Sandy M	lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	_RR N,			
MLRA	\ 147, 148)		MLRA 13	6)					
Sandy G	lleyed Matrix (S4)							licators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>l8)</b> we	etland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent N	Naterial (F	21) <b>(MLR</b> .	A 127, 147	<b>7)</b> un	lless disturbed or problematic.	
Restrictive I	ayer (if observed):								
Type: Co	bble		_						
Depth (inc	ches): <u>10</u>						Hydric Soil	l Present? Yes No	.
							L		
Test hydric inc	dicator for LRR S. Cle	early wetland	hydrology.						
•		•	, 0,						



Photo 1
Wetland data point WAUE001s\_w facing west



Photo 2
Wetland data point WAUE001s\_w facing north

Project/Site: Atlantic Coast Pipeline		City/0	County: Augusta County		Sampling Date: 11/11/2015			
Applicant/Owner: Dominion				State: VA	Sampling Point: waue001_u			
Investigator(s): CG, AS		Secti	on, Township, Range: No	PLSS in this area	a			
Landform (hillslope, terrace, etc.): Slo								
Subregion (LRR or MLRA): N								
Soil Map Unit Name: Lew bouldery sil	loam, 10 to 45	percent slopes		NWI classific	cation: None			
Are climatic / hydrologic conditions on	the site typical f	or this time of year?	Yes No	(If no, explain in F	Remarks.)			
Are Vegetation, Soil, o	r Hydrology	significantly distu	rbed? Are "Normal	Circumstances"	present? Yes V No			
Are Vegetation, Soil, o								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Yes	No 🗸						
Hydric Soil Present?		No	Is the Sampled Area		No ✓			
Wetland Hydrology Present?	Yes		within a Wetland?	res	NO			
HYDROLOGY								
Wetland Hydrology Indicators:					ators (minimum of two required)			
Primary Indicators (minimum of one i	•			Surface Soil				
Surface Water (A1)		True Aquatic Plants		Dry-Season Water Table (C2)				
High Water Table (A2)		Hydrogen Sulfide Od						
Saturation (A3) Water Marks (B1)		Presence of Reduce	• , ,					
Sediment Deposits (B2)		Recent Iron Reduction						
Drift Deposits (B3)		Thin Muck Surface (			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	_	Other (Explain in Re			Stressed Plants (D1)			
Iron Deposits (B5)	<u>—</u>		,	·	Position (D2)			
Inundation Visible on Aerial Imag	gery (B7)			Shallow Aqu				
Water-Stained Leaves (B9)				Microtopogra	aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	l Test (D5)			
Field Observations:								
		_ Depth (inches):						
		_ Depth (inches):						
(includes capillary fringe)		_ Depth (inches):		and Hydrology Present? Yes No				
Describe Recorded Data (stream gau	age, monitoring v	well, aerial photos, pre	evious inspections), if ava	ilable:				
Remarks:								

#### ٧

			Absolute	Dominant	Indicator	Dominance Test worksheet:	
ree Stratum (Plot size:	0	)	% Cover	Species?	Status	Number of Dominant Species	
Fagus grandifolia			50	Yes	FACU	That Are OBL, FACW, or FAC:	1 (
Nyssa sylvatica			5	No	FAC		
						Total Number of Dominant	5 (
						Species Across All Strata:	(
•						Percent of Dominant Species	
•						That Are OBL, FACW, or FAC:	(
•						Barrelan a la la constala de la cons	
•						Prevalence Index worksheet:	
			55	= Total Cove	er		Multiply by:
	50% of	total cover:	27.5 20% of	total cover:_	11	OBL species x 1 =	
Sapling/Shrub Stratum (Plot	size:	0 )				FACW species0 x 2 =	
Fagus grandifolia			20	Yes	FACU	FAC species 10 x 3 =	30
Nyssa sylvatica			5	Yes	FAC	FACU species85 x 4 =	340
						UPL species 0 x 5 =	0
· <u> </u>						95	370
•						Column Totals: (A)	
•						Prevalence Index = B/A =	3.89
						Hydrophytic Vegetation Indicator	<del></del>
						1 - Rapid Test for Hydrophytic \	√egetation
 I.			<del></del>			2 - Dominance Test is >50%	
· <u> </u>			25	T-1-1 O		3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	F00/ -f			= Total Cove	er 5	4 - Morphological Adaptations <sup>1</sup>	(Provide suppo
	50% of	total cover:	12.0 20% of	total cover:_		data in Remarks or on a sep	parate sheet)
lerb Stratum (Plot size:		)	0.5			Problematic Hydrophytic Veget	
Sphagnum sp.			25	Yes		1 Toblematic Hydrophytic Veget	ation (Explain)
Rosa multiflora			15	Yes	FACU	10 diagram of books and and on the	d la calcala accesso
						<sup>1</sup> Indicators of hydric soil and wetland be present, unless disturbed or prob	
				<u> </u>		·	
*						Definitions of Four Vegetation Str	ata:
•			<del></del>			Tree – Woody plants, excluding vine	es, 3 in. (7.6 cr
						more in diameter at breast height (D	)BH), regardles
•						height.	
						Sapling/Shrub – Woody plants, exc	cluding vines l
. <u></u>						than 3 in. DBH and greater than or	
0						m) tall.	
1						<b>Herb</b> – All herbaceous (non-woody)	A planta ragard
			15	= Total Cove		of size, and woody plants less than	
	50% of	total cover:		total cover:		, , , , , , , , , , , , , , , , , , , ,	
Voody Vine Stratum (Plot siz				<u>-</u>		Woody vine – All woody vines grea	iter than 3.28 ft
						height.	
•							
·						Hydrophytic	
i						Vegetation	_
			0	= Total Cove	er	Present? Yes !	No
	50% of	total cover:		total cover:	^		
Pemarke: (Include shote sus		<u> </u>	<u> </u>			1	
Remarks: (Include photo nun	mers nere	oi oii a separa	te sneet.)				

Depth	Matrix		Redox Featur	es	<u> </u>	
nches)	Color (moist)	<u>%</u>	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-10	10YR 4/3	100			SICL	
		· —— —		<del></del>	_	
		- <u> </u>				
				<del></del>		· ·
					_	
					_	
		<del></del>		<del></del>		
					<u> </u>	
		<del></del>			2	
		letion, RM=Re	educed Matrix, MS=Maske	ed Sand Grains.		PL=Pore Lining, M=Matrix.
dric Soil	Indicators:				Indic	cators for Problematic Hydric Soils <sup>3</sup> :
_ Histoso			Dark Surface (S7)			2 cm Muck (A10) (MLRA 147)
_ Histic E	pipedon (A2)		Polyvalue Below Surf	ace (S8) (MLRA 14	7, 148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S		)	(MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loamy Gleyed Matrix	(F2)		Piedmont Floodplain Soils (F19)
_ Stratifie	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)
_ 2 cm M	uck (A10) (LRR N)		Redox Dark Surface	(F6)		Very Shallow Dark Surface (TF12)
_ Deplete	ed Below Dark Surfac	e (A11)	Depleted Dark Surface	e (F7)	(	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (	F8)		
_ Sandy I	Mucky Mineral (S1) (I	LRR N,	Iron-Manganese Mas	ses (F12) (LRR N,		
MLR	A 147, 148)		MLRA 136)			
_ Sandy	Gleyed Matrix (S4)		Umbric Surface (F13)	(MLRA 136, 122)	<sup>3</sup> In	dicators of hydrophytic vegetation and
_ Sandy I	Redox (S5)		Piedmont Floodplain	Soils (F19) (MLRA	<b>148)</b> w	retland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent Material (	F21) <b>(MLRA 127, 1</b>	<b>47)</b> ui	nless disturbed or problematic.
estrictive	Layer (if observed):					
Type:	)					
Depth (ir			_		Hydric Soi	il Present? Yes No 🗸
			<del>-</del>		Tiyane 30	iii i leseiit : Tes No
emarks:						



Photo 1 Upland data point WAUE001\_u facing north



Photo 2 Upland data point WAUE001\_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: At	ugusta County	Sampling Date: 11/21/2015				
Applicant/Owner: Dominion		State: VA	Sampling Point: waue002e_w				
	Section, Towns						
Landform (hillslope, terrace, etc.): slope							
Subregion (LRR or MLRA): N	Lat: 37.92518261	Long: -78.98118575	Datum: WGS 1984				
Soil Map Unit Name: Lew bouldery silt loam, 10	to 45 percent slopes	NWI class	ification: None				
Are climatic / hydrologic conditions on the site ty	oical for this time of year? Yes	_ No (If no, explain ir	n Remarks.)				
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstances	s" present? Yes No				
Are Vegetation, Soil, or Hydrolog							
SUMMARY OF FINDINGS – Attach s							
Hydrophytic Vegetation Present? Yes	✓ No le the S						
	No.	ampled Area	No				
	No	ı Wetland? Yes	NO				
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)				
Primary Indicators (minimum of one is required	; check all that apply)	Surface S	oil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely \	/egetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Odor (C1)		Patterns (B10)				
✓ Saturation (A3)							
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Seaso	C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction in Tilled	Soils (C6) Crayfish B	Burrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Remarks)	· <u></u>	r Stressed Plants (D1)				
Iron Deposits (B5)			nic Position (D2)				
Inundation Visible on Aerial Imagery (B7)			quitard (D3)				
Water-Stained Leaves (B9)			graphic Relief (D4)				
Aquatic Fauna (B13)		<u>✓</u> FAC-Neut	rai Test (D5)				
Field Observations: Surface Water Present? Yes No	Depth (inches):						
	Depth (inches): 8						
	Depth (inches):0	Wetland Hydrology Pres					
(includes capillary fringe)	Deptit (inches)	wetiand nydrology Pres	sent? Yes No				
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous insp	pections), if available:					
Denote							
Remarks:							

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: waue002e_w
	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)  1. Fraxinus profunda	% Cover 5	Species? Yes	Status OBL	Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
2 Fraxinus pennsylvanica	5	Yes	FACW	(1)
	•			Total Number of Dominant
	-			Species Across All Strata: (B)
4	-			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6	-	· <del></del>		Prevalence Index worksheet:
7	10			Total % Cover of: Multiply by:
_		= Total Cove		OBL species x 1 =
50% of total cover: 5	20% of	total cover:	2	F 40
Sapling/Shrub Stratum (Plot size:)	40		ODI	FACW species x z =
1. Lobelia dortmanna	10	Yes	OBL	FAC species $\frac{0}{2}$ $x = \frac{0}{8}$
2. Cercis canadensis	2	No	FACU	FACU species x 4 =
3				UPL species $x5 = 0$ $112$ $x5 = 123$
4	-			Column Totals: (A) (B)
5	-			Prevalence Index – R/A – 1.09
6	, <u> </u>			1 Tevalence mack = B/A =
7				Hydrophytic Vegetation Indicators:
8.				1 - Rapid Test for Hydrophytic Vegetation
9.	-			2 - Dominance Test is >50%
<u>.                                    </u>	12	= Total Cove		✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 6		total cover:	2.4	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5 )	2070 01	total cover.		data in Remarks or on a separate sheet)
1 Leersia oryzoides	80	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex aquatilis	10	No	OBL	
		· <del></del>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				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
10	-			m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45	20% of	total cover:	18	Management Allemander in a second at the control of
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 ft in height.
1				The same of the sa
2.				
3.				
4				
	-			Hydrophytic
5	0	Total Cave		Vegetation   Present?   Yes No
50% of total cover: 0		= Total Cover:	_	
Remarks: (Include photo numbers here or on a separate s		total cover.		
Remarks. (include prioto numbers here of on a separate s	neet.)			

Sampling Point: waue002e\_w

Profile Desc	cription: (Describe t	o the depth	needed to docur	nent the in	ndicator	or confirm	the abse	nce of indicators.)	
Depth	Matrix			x Features	s				
(inches) 0-12	Color (moist) 7.5YR 2/2	90 2	Color (moist) 5YR 3/6	10	Type <sup>1</sup> C	Loc <sup>2</sup> PL/M	Texture SIL	e <u>f</u> mucky minera	Remarks I
						· · · <u></u> -			
						· · · <u></u> -			
	-					· <del></del>			
								<del></del>	
	-								
						. <u> </u>			
	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.		n: PL=Pore Lining, N	
Hydric Soil			Davis Confess	(07)			ın		ematic Hydric Soils <sup>3</sup> :
Histosol	ı (A1) pipedon (A2)		Dark Surface Polyvalue Be		ca (S8) <b>(N</b>	NI DA 147	1/8)	<ul><li>2 cm Muck (A10)</li><li>Coast Prairie Red</li></ul>	
	istic (A3)		Thin Dark Su				140) _	Coast Frame Ret (MLRA 147, 14	
	en Sulfide (A4)		Loamy Gleye			, <b>,</b>		_ Piedmont Floodp	-
	d Layers (A5)		Depleted Ma	. ,				(MLRA 136, 1	
	uck (A10) (LRR N)	(8.4.4)	<u>✓</u> Redox Dark				_	_ Very Shallow Dai	
	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Date Redox Depre		. ,		_	_ Other (Explain in	Remarks)
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan			LRR N,			
	A 147, 148)	,	MLRA 13		, ,	,			
	Gleyed Matrix (S4)		Umbric Surfa						phytic vegetation and
-	Redox (S5)		Piedmont Flo					wetland hydrology	
	d Matrix (S6)  Layer (if observed):		Red Parent N	vlaterial (F2	21) <b>(MLR</b>	A 127, 147	)	unless disturbed o	r problematic.
Type: CO	bble								
Depth (in	ches): <u>12</u>						Hvdric	Soil Present? Ye	es <u> </u>
Remarks:			<u> </u>				, ,		
Cobble at 12	inches								



Photo 1 Wetland data point waue002e\_w facing north



Photo 2
Wetland data point waue002e\_w facing south

Project/Site: Atlantic Coast Pipeline	City/0	County: Augusta County	Sa	mpling Date: 11/21/2015			
Applicant/Owner: Dominion		St	ate: VA	Sampling Point: waue002_u			
		ion, Township, Range: No PLS					
Landform (hillslope, terrace, etc.): driveway				Slope (%): <sup>5</sup>			
Subregion (LRR or MLRA): N							
Soil Map Unit Name: Lew bouldery silt loam,	10 to 45 percent slopes	Long	NWI classificatio	n: None			
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes No (If no	, explain in Rema	arks.)			
Are Vegetation, Soil, or Hydrol	logy significantly distu	rbed? Are "Normal Circ	umstances" pres	ent? Yes No _ 🗸			
Are Vegetation, Soil, or Hydrol							
SUMMARY OF FINDINGS – Attach							
Hydrophytic Vegetation Present? Ye	es No						
	es No	Is the Sampled Area	Yes	No. V			
	es No 🗸	within a Wetland?	res	NO			
Remarks:							
HYDROLOGY			1 1 2 4				
Wetland Hydrology Indicators:				s (minimum of two required)			
Primary Indicators (minimum of one is requir			Surface Soil Cra				
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)				
High Water Table (A2)	Hydrogen Sulfide Od						
Saturation (A3)	Oxidized Knizosphel						
Water Marks (B1) Sediment Deposits (B2)	Recent Iron Reduction		Crayfish Burrows				
Drift Deposits (B3)	Thin Muck Surface (		-	e on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Re		Stunted or Stres	= : : :			
Iron Deposits (B5)			Geomorphic Pos				
Inundation Visible on Aerial Imagery (B7	7)		Shallow Aquitard				
Water-Stained Leaves (B9)	,		Microtopographi				
Aquatic Fauna (B13)		_	FAC-Neutral Tes	st (D5)			
Field Observations:							
	No Depth (inches):						
Water Table Present? Yes N	No Depth (inches):						
	No Depth (inches):	Wetland Hydro	ology Present?	Yes No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, pro	<u> </u>	e:				
, , ,		, ,,					
Remarks:							
no hydrology							

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: waue002_u
20		Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:30) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 0 (B)
4				Beneat of Benefit and Oracine
5				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
3				
7				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
ŝ				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				, , , , , , , , , , , , , , , , , , , ,
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				Indicators of hydric call and watered hydrology may
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				Canling/Chaule Washington and and an income
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s to vegetation present	heet.)			

Sampling Point: waue002\_u

Profile Desc	ription: (Describe t	o the depth r				or confirm	the abse	nce of indica	tors.)		
Depth	Matrix		Redo	x Features	S _ 1	. 2	_		_		
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u> </u>	Remar	ks	
							-				
			<del></del>								
¹Type: C=Cc	ncentration, D=Depl	ation PM-Pe	duced Matrix M	S-Mackad	Sand Gra	nine	<sup>2</sup> Location	n: PL=Pore Li	ning M-Mat	riv	
Hydric Soil I		elion, Kivi=Ke	duced Matrix, M	3=IVIASKEU	Sanu Gra	aii 15.		dicators for I			sile <sup>3</sup> :
-				(O-)						-	)ii5 .
Histosol		-	Dark Surface		, <del>-</del>				(A10) (MLR		
	ipedon (A2)	-	Polyvalue Be				148)		ie Redox (A	16)	
Black His		-	Thin Dark Sເ	, ,	•	47, 148)			147, 148)		
Hydroge	n Sulfide (A4)	-	Loamy Gleye	ed Matrix (I	F2)			Piedmont F	Floodplain So	oils (F19)	
Stratified	Layers (A5)	_	Depleted Ma	trix (F3)				(MLRA 1	136, 147)		
2 cm Mu	ck (A10) (LRR N)	<u>-</u>	Redox Dark	Surface (F	6)			_ Very Shallo	w Dark Surf	ace (TF12)	)
Depleted	Below Dark Surface	(A11)	Depleted Da	k Surface	(F7)			_ Other (Exp	lain in Rema	rks)	
Thick Da	rk Surface (A12)	_	Redox Depre	ssions (F8	3)						
Sandy M	ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,					
	147, 148)	, <u>-</u>	MLRA 13		, ,	,					
	leyed Matrix (S4)		Umbric Surfa	-	MI RA 13	6 122)		<sup>3</sup> Indicators of	hydronhytic	venetation	and
	edox (S5)	=	Piedmont Flo					wetland hyd		-	
		-						-			,
	Matrix (S6)	-	Red Parent N	nateriai (F.	21) (WLK	A 127, 147	')	unless distu	bed of probl	emanc.	
Restrictive L	.ayer (if observed):										
Type:			_								_
Depth (inc	hes):		_				Hydric	Soil Present?	Yes	No_	
Remarks:											
	due to pavement										
no son pit dug	due to pavement										



Photo 1 Upland point waue002\_u facing south



**Photo 2**Upland point waue002\_u facing north

Project/Site: Atlantic Coast Pipeline	е	City/C	County: Augusta County		Sampling Date: 2/10/2016			
Applicant/Owner: Dominion					Sampling Point: waua400f_w			
Investigator(s): GB, AS			on, Township, Range: No					
Landform (hillslope, terrace, etc.):					Slope (%):4			
Subregion (LRR or MLRA): N	Lat:	37.91926771	Long: -78.	98232464	Datum: WGS 1984			
Soil Map Unit Name: Lew bouldery	silt loam, 10 to 45 p	percent slopes		NWI classi	fication: None			
Are climatic / hydrologic conditions	on the site typical for	or this time of year?	′es No	(If no, explain in	Remarks.)			
Are Vegetation, Soil	_, or Hydrology	significantly distu	bed? Are "Norma	I Circumstances'	"present? Yes No			
Are Vegetation, Soil	_, or Hydrology	naturally problem	atic? (If needed,	explain any answ	vers in Remarks.)			
SUMMARY OF FINDINGS	- Attach site m	nap showing san	npling point location	ons, transect	ts, important features, etc.			
Hydrophytic Vegetation Present?	Yes 🗸	No						
Hydric Soil Present?		No	Is the Sampled Area					
Wetland Hydrology Present?	Yes 🗸		within a Wetland?	Yes	, No			
Remarks:	<u> </u>	<u></u>						
linear concavity; hydrology from se surface to subterranean;hydrologic								
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indi	cators (minimum of two required)			
Primary Indicators (minimum of o	ne is required; chec	k all that apply)		Surface So	oil Cracks (B6)			
Surface Water (A1)		True Aquatic Plants						
High Water Table (A2)		Hydrogen Sulfide Od	or (C1)	✓ Drainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizospher							
Water Marks (B1)	Presence of Reduce		Dry-Season Water Table (C2)					
Sediment Deposits (B2)		Recent Iron Reduction		-	urrows (C8)			
Drift Deposits (B3) Thin Muck Surface (C7)				Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Rei	marks)		Stressed Plants (D1)			
Iron Deposits (B5)					ic Position (D2)			
Inundation Visible on Aerial I	nagery (B7)			Shallow Ac				
Water-Stained Leaves (B9)					graphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutr	ai Test (D5)			
Field Observations:	🗸	5						
		Depth (inches):	<del></del>					
		Depth (inches):	0					
Saturation Present? You (includes capillary fringe)	es No	Depth (inches):	Wetland I	Hydrology Pres	ent? Yes V No No			
Describe Recorded Data (stream	gauge, monitoring v	vell, aerial photos, pre	evious inspections), if ava	ailable:				
·								
Remarks:								

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: waua400f_w
	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30)  1. Acer rubrum	% Cover 20	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:6 (A)
2. Nyssa sylvatica	8	Yes	FAC	, , ,
3. Fagus grandifolia	5	No	FACU	Total Number of Dominant Species Across All Strata:  6 (B)
Betula lenta	3	No	FACU	Species Across All Strata: (B)
-				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	36			Total % Cover of: Multiply by:
10	:	= Total Cove	r 7.2	OBL species $0 \times 1 = 0$
50% of total cover: 18	20% of	total cover:_		FACW species6
Sapling/Shrub Stratum (Plot size:)	45	V	E40	FO 4FC
1. Acer rubrum	15	Yes	FAC	FAC species X 3 =
2. Nyssa sylvatica	6	Yes	FAC	FACU species x 4 =
3. Fagus grandifolia	3	No	FACU	UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =3.07
6				1 Tevalence index = B/A =
7				Hydrophytic Vegetation Indicators:
8.				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
·	24	= Total Cove		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 12		total cover:_	4.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5 )		_		data in Remarks or on a separate sheet)
1 Packera aurea	6	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex blanda	3	Yes	FAC	
		· <del></del>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				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
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 4.5	20% of	total cover:_	1.8	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2.				
3.				
4				
5				Hydrophytic Vegetation
<u>.                                    </u>	0	= Total Cove		Present? Yes No
50% of total cover:		total cover:_	0	
		total cover		
Remarks: (Include photo numbers here or on a separate sl	ieet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-5	10YR 2/1	100					SL	
5-10	10YR 4/2	96	10YR 5/4	4	С	PL/M	SL	rock at 10"
	•	: ( <del></del>						
	-	· ——						-
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		e (S8) (N	ILRA 147,		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				· —	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		F	Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		✓ Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ıck (A10) (LRR N)		Redox Dark S	Surface (F6	)		\	/ery Shallow Dark Surface (TF12)
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	k Surface (	F7)		c	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre	ssions (F8)	)			
Sandy N	Mucky Mineral (S1) (L	_RR N,	Iron-Mangane	ese Masses	s (F12) <b>(</b>	LRR N,		
MLRA	A 147, 148)		MLRA 136	3)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(N</b>	ILRA 13	6, 122)	<sup>3</sup> Inc	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soi	ils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
	l Matrix (S6)		Red Parent M	laterial (F2	1) <b>(MLR</b>	A 127, 147	') un	lless disturbed or problematic.
	Layer (if observed):							
Type: no	ne							
Depth (in	ches):						Hydric Soil	Present? Yes V No V
Remarks:								
rtomanto.								



Photo 1
Wetland data point WAUA400f\_w facing northwest



**Photo 2**Wetland data point WAUA400f\_w facing southwest

Project/Site: Atlantic Coast Pipeline		County Sampling Date:						
Applicant/Owner: Dominion					Sampling Point: waua400_u			
			n, Township, Range: No					
Landform (hillslope, terrace, etc.): slope					Slope (%): <u>8</u>			
Subregion (LRR or MLRA): N					Datum: WGS 1984			
Soil Map Unit Name: Lew bouldery silt loa		cent slopes		NWI classifica	tion: None			
Are climatic / hydrologic conditions on the								
Are Vegetation, Soil, or Hy								
Are Vegetation, Soil, or Hy								
SUMMARY OF FINDINGS – Att								
			pg po	,				
Hydrophytic Vegetation Present?	Yes I		Is the Sampled Area		_			
Hydric Soil Present?	Yes I	No	within a Wetland?	Yes	No			
Wetland Hydrology Present?  Remarks:		,NO						
HADDOL OCA								
HYDROLOGY				Casandani Indiaat	ara (minimum of tuo roquirod)			
Wetland Hydrology Indicators:	aguirad: abaak al	I that apply)			ors (minimum of two required)			
Primary Indicators (minimum of one is re	-		21.4)	Surface Soil C				
High Water Table (A2)	Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)				<ul><li>Sparsely Vegetated Concave Surface (B8)</li><li>Drainage Patterns (B10)</li></ul>			
Saturation (A3)		-	es on Living Roots (C3)	Moss Trim Lin				
Water Marks (B1)		esence of Reduced			/ater Table (C2)			
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burro				
Drift Deposits (B3)		in Muck Surface (C			ible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Oth	her (Explain in Rem	narks)	Stunted or Str	essed Plants (D1)			
Iron Deposits (B5)				Geomorphic F	Position (D2)			
Inundation Visible on Aerial Imagery	/ (B7)			Shallow Aquita	ard (D3)			
Water-Stained Leaves (B9)					phic Relief (D4)			
Aquatic Fauna (B13)			•	FAC-Neutral 1	Test (D5)			
Field Observations:	N. <b>V</b> 5	and the Carabana						
		epth (inches):						
		epth (inches):		Wetland Hydrology Present? Yes No				
Saturation Present? Yes (includes capillary fringe)	No De	epth (inches):	Wetland H	lydrology Present	? Yes No			
Describe Recorded Data (stream gauge	, monitoring well,	, aerial photos, prev	vious inspections), if ava	ilable:				
Remarks:								
no hydrology indicators present								

Yes No  Total Cove otal cover:  Yes No  No  No	FACU FACU FACU FACU	Number of Dominant Species
Yes Yes No Total Cove otal cover: Yes Yes No No	FACU FACU FACU FACU FACU FACU FACU FACU	That Are OBL, FACW, or FAC:         1         (A)           Total Number of Dominant Species Across All Strata:         6         (B)           Percent of Dominant Species That Are OBL, FACW, or FAC:         16.6666666         (A/B)           Prevalence Index worksheet:         Multiply by:         OBL species         0         x 1 = 0         0           FACW species         0         x 2 = 0         0
Yes No  Total Cove total cover:  Yes Yes No No	FACU FACU FACU FACU FACU	Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  OBL species  O
Yes No  Total Cove total cover:  Yes Yes No No	FACU FACU FACU	Species Across All Strata: 6 (B)   Percent of Dominant Species   16.6666666 (A/B)   Prevalence Index worksheet:
Total Covercial cover:_ Yes Yes No No	FACU FACU FACU	Percent of Dominant Species   That Are OBL, FACW, or FAC:   16.6666666   (A/B)
Total Cove otal cover: Yes Yes No No	FACU FACU FACU	That Are OBL, FACW, or FAC:
Total Cove otal cover:_ Yes Yes No No	FACU FACU FACU	That Are OBL, FACW, or FAC:
Yes Yes No No	FACU FACU FACU	
Yes Yes No No	FACU FACU FACU	OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
Yes Yes No No	FACU FACU FACU	FACW species $\begin{array}{c} x = \\ 0 \\ x = \\ 0 \\ \end{array}$
Yes Yes No	FACU FACU	FACW species x 2 =
Yes No No	FACU FACU	
Yes No No	FACU FACU	
No No	FACU	FACU species88
No		UPL species
		07 370
No		Column Totals: (A) (B)
	FAC	Prevalence Index = B/A = 3.9
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
Total Cove	r	3 - Prevalence Index is ≤3.0 <sup>1</sup>
	6.4	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
_		data in Remarks or on a separate sheet)
Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
		Definitions of Four Vegetation Strata:
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of
		height.
		Sanling/Shrush Weady plants avaluating vines less
		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
		m) tall.
		Hart All back and a constant and a last a constant
Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	1	
_		<b>Woody vine</b> – All woody vines greater than 3.28 ft in
		height.
		Hydrophytic
		Vegetation
Total Cove	_	Present? Yes No
otal cover:_	0	
	Yes  Yes  Total Cove  Total Cove  Total Cove	Yes FAC  Yes FAC  Total Cover otal cover: 1

Sampling Point: waua400\_u

	cription: (Describe	to the dept				or confirm	the absen	ice of indicators.)
Depth	Matrix	%	Redo	x Feature	S1	Loc <sup>2</sup>	T	Damanda
(inches) 0-5	Color (moist) 10YR 4/4		Color (moist)	%	Type <sup>1</sup>	LOC	<u>Texture</u> SL	Remarks
5-11	10YR 4/3	100					SCL	
11-18	10YR 5/4	100					SCL	
	-							
	-							
	· -							
	-							<del></del>
Type: C=C	Concentration, D=De	pletion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
	Indicators:							dicators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)			Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S				_	Very Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)	Depleted Dar				_	Other (Explain in Remarks)
	Park Surface (A12)	(I DD N	Redox Depre					
	Mucky Mineral (S1) (	(LRR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,		
	<b>A 147, 148)</b> Gleyed Matrix (S4)		MLRA 136 Umbric Surfa	•	MIDA 12	6 122\	3	Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed)	<b>)</b> :	Red r drene n	iatoriai (i	21) (IIII21X	A 121, 141	, 	diffess distarbed of problematic.
Type: _ne	one	,.						
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Depth (ir	icries).						nyuric 3	NO
Remarks:								



Photo 1 Upland data point WAUA400\_u facing east



Photo 2 Upland data point WAUA400\_u facing south