Project/Site: Atlantic Coast Pipeline	City/County: Augusta	County	Sampling Date: 8/18/2016			
Applicant/Owner: DOMINION		State: VA	Sampling Point: wauz013s_w			
	Section, Township, Ra					
Landform (hillslope, terrace, etc.): Floodplain						
Subregion (LRR or MLRA): S						
Soil Map Unit Name: Fluvaquents, nearly level	- ' '	NWI classific	ation: PSS			
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes No _	(If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology	v significantly disturbed? Are	"Normal Circumstances" p	oresent? Yes No			
Are Vegetation, Soil, or Hydrolog						
SUMMARY OF FINDINGS – Attach s						
Hydrophytic Vegetation Present? Yes _	V No In the Sample					
	No lis the Samplet					
	No within a Wetla	nd? 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)	Secondary midica Surface Soil				
			getated Concave Surface (B8)			
High Water Table (A2)	Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)					
Saturation (A3)	Oxidized Rhizospheres on Living Roo	Drainage Parts (C3) Moss Trim Li				
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (· ·				
Drift Deposits (B3)	Thin Muck Surface (C7)	· · ·	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or S	tressed Plants (D1)			
Iron Deposits (B5)		Geomorphic	Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aqui	itard (D3)			
Water-Stained Leaves (B9)			phic Relief (D4)			
Aquatic Fauna (B13)		<u>✓</u> FAC-Neutral	Test (D5)			
Field Observations:						
<u> </u>	Depth (inches):					
	Depth (inches):					
Saturation Present? Yes Ves No (includes capillary fringe)	Depth (inches): 1	etland Hydrology Presen	t? Yes V No			
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspections	s), if available:				
Remarks:						

VEGETATION (Four Strata) - Use scientific names of plants

OBL species	120 0 0 160 (B) 2 getation rovide supporting ate sheet)
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: Prevalence Index worksheet: Total % Cover of: Mul OBL species 40 x 1 = FACW species 0 x 2 = FACW species 0 x 4 = UPL species 0 x 4 = UPL species 0 x 5 = Column Totals: 80 (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation FACW species Index is ≤3.0¹ A - Morphological Adaptations¹ (P) data in Remarks or on a separ Problematic Hydrophytic Vegetation	3 (B) 100 (A/B) tiply by: 40 0 120 0 160 (B) 2 getation
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiple Multipl	3 (B) 100 (A/B) tiply by: 40 0 120 0 160 (B) 2 getation
Percent of Dominant Species	100 (A/B) tiply by: 40 0 120 0 160 (B) 2 getation
Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of:	100 (A/B) tiply by: 40 0 120 0 160 (B) 2 getation
That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiple OBL species 40	tiply by: 40 0 120 0 160 (B) 2 getation
That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiple OBL species 40	tiply by: 40 0 120 0 160 (B) 2 getation
Prevalence Index worksheet: Total % Cover of: Multiple	40 0 120 0 0 160 (B) 2 getation
Total % Cover of:	40 0 120 0 0 160 (B) 2 getation
OBL species 40 x 1 =	40 0 120 0 0 160 (B) 2 getation
OBL species	0 120 0 0 160 (B) 2 getation
FACW species 0 x 2 = 1 FAC species 40 x 3 = 1 FACU species 0 x 4 = 1 UPL species 0 x 5 = 1 Column Totals: 80 (A) Prevalence Index = B/A = 1 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Index = Solution S	120 0 0 160 (B) 2 getation rovide supporting ate sheet)
FAC species 40 x 3 = FACU species 0 x 4 = UPL species 0 x 5 = Column Totals: 80 (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is >50% 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Podata in Remarks or on a separ Problematic Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Podata in Remarks or on a separ Indicators) 4 - Morphological Adaptations¹ (Podata in Remarks or on a separ Indicators)	120 0 0 160 (B) 2 getation rovide supporting ate sheet)
FACU species 0 x 4 = UPL species 0 x 5 = Column Totals: 80 (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is >50% 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Podata in Remarks or on a separ Problematic Hydrophytic Vegetations)	0 0 160 (B) 2 getation rovide supporting ate sheet)
UPL species 0 x 5 =	getation rovide supporting ate sheet)
OPL species	getation rovide supporting ate sheet)
Prevalence Index = B/A =	getation rovide supporting ate sheet)
Prevalence Index = B/A =	getation rovide supporting ate sheet)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (P data in Remarks or on a separ Problematic Hydrophytic Vegetation	getation rovide supporting ate sheet)
1 - Rapid Test for Hydrophytic Verification 1 - Rapid Test for Hydrophytic Verification 2 - Dominance Test is >50% 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Podata in Remarks or on a separement of the problematic Hydrophytic Vegetation) Problematic Hydrophytic Vegetation	rovide supporting ate sheet)
vover: 6 OBL 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0¹ — 4 - Morphological Adaptations¹ (Podata in Remarks or on a separal problematic Hydrophytic Vegetations)	rovide supporting ate sheet)
I Cover 6 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (P data in Remarks or on a separ — Problematic Hydrophytic Vegetations of the second of the seco	ate sheet)
Cover 6	ate sheet)
Cover 6	ate sheet)
data in Remarks or on a separ output output data in Remarks or on a separ output Problematic Hydrophytic Vegetation	ate sheet)
es OBL Problematic Hydrophytic Vegetation	
es Obl	on' (Evolain)
	on (Explain)
es FAC	
FACW Indicators of hydric soil and wetland h	
be present, unless disturbed or proble	matic.
—— Definitions of Four Vegetation Strat	a:
	2 in (7.6 cm) or
height.	,, <u></u>
	uai to 5.20 it (1
Herb – All herbaceous (non-woody) pl	
	28 ft tall.
woody vine – All woody vines greate	r than 3.28 ft in
height.	
Dragant2 Vac V Na	
———	
over:	
ta	be present, unless disturbed or proble Definitions of Four Vegetation Strat Tree – Woody plants, excluding vines more in diameter at breast height (DBi height. Sapling/Shrub – Woody plants, excluting vines more in diameter at breast height (DBi height. Sapling/Shrub – Woody plants, excluting in the problem of size, and greater than or equing it all. Herb – All herbaceous (non-woody) professize, and woody plants less than 3.2 Woody vine – All woody vines greate height. Hydrophytic Vegetation

Profile Des	cription: (Describe t	o the dep	oth needed to docur	nent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix			x Feature:	s			
(inches) 0-5	Color (moist) 10YR 4/2	100	Color (moist)	<u> </u>	Type ¹	Loc ²	Texture SIL	Remarks
5-21	10YR 7/1	90	10YR 5/4	10	С	PL/M	SIL	
								_
						- <u></u>		-
								_
1Type: C-C	oncentration, D=Depl	otion PM	-Poducod Matrix, M	S-Mackad	L Sand Gr	raine	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		ellon, Kivi	=Reduced Matrix, M.	S=IVIASKEC	i Sanu Gi	allis.		icators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) (I	MI RA 147.		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su				,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			141, 140,		Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma)		_	(MLRA 136, 147)
·	uck (A10) (LRR N)		Redox Dark	. ,	- 6)			Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Da					Other (Explain in Remarks)
	ark Surface (A12)	, (, , , , ,	Redox Depre					C
	Mucky Mineral (S1) (L	RR N.	Iron-Mangan			LRR N.		
	A 147, 148)	,	MLRA 13		() (,,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	36. 122)	3	ndicators 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>		, ,		<u></u>	'
Type:								
	ches):						Hydric So	oil Present? Yes <u>'</u> No
Remarks:							· L	



Wetland data point wauz013s_w

Project/Site: Atlantic Coast Pipeline			City/	County: Augusta County	y	Sampling Date: 8/18/2016	
Applicant/Owner: DOMINION					State: VA	Sampling Point: wauz013_u	
				ion, Township, Range:			
Landform (hillslope, terrace, etc.): Floodp							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Fluvaquents, nearly	level				NWI classi	fication: UPL	
Are climatic / hydrologic conditions on the	site typical fo	or this tir	me of year?	Yes V No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hy							
Are Vegetation, Soil, or Hy							
SUMMARY OF FINDINGS – Atta							
Lhadronhadia Variatatian Drasanto		NI-			<u> </u>		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes			Is the Sampled Area		•	
Wetland Hydrology Present?	Yes			within a Wetland?	Yes	No	
Remarks:							
LIVEROLOGY							
HYDROLOGY Western Hydrology Indicators:					Cocondon Indi	catara (minimum of two required)	
Wetland Hydrology Indicators:	autro de oboo	اد ماا المما	t annly)			cators (minimum of two required)	
Primary Indicators (minimum of one is re				(D4.4)	Surface So		
Surface Water (A1)			quatic Plants en Sulfide O		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)		
High Water Table (A2) Saturation (A3)				res on Living Roots (C3)		Lines (B16)	
Water Marks (B1)			ce of Reduce			n Water Table (C2)	
Sediment Deposits (B2)				on in Tilled Soils (C6)		urrows (C8)	
Drift Deposits (B3)			uck Surface (Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)			Explain in Re			Stressed Plants (D1)	
Iron Deposits (B5)		,	·		Geomorphi	ic Position (D2)	
Inundation Visible on Aerial Imagery	(B7)				Shallow Ac	quitard (D3)	
Water-Stained Leaves (B9)					Microtopog	raphic Relief (D4)	
Aquatic Fauna (B13)					FAC-Neutr	al Test (D5)	
Field Observations:							
	No						
	No						
Saturation Present? Yes (includes capillary fringe)	No	Depth	(inches):	Wetland	Hydrology Pres	ent? Yes No	
Describe Recorded Data (stream gauge,	, monitoring v	well, aer	ial photos, pr	revious inspections), if av	vailable:		
Demonto							
Remarks:							

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species PACW species FACW species FACW species PACW species FACU species Column Totals: 100 Prevalence Index = B/A = 4 Hydrophytic Vegetation Prevalence Index is ≤3.0¹ At Morphological Adaptations¹ (Provide supportine data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of more in diameter at breast height (DBH).
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: O O OBL species O FAC species O Column Totals: O Total Number of Dominant Species That Are OBL, FACW, or FAC: OBL species O FAC species O FAC species O Column Totals: O Total % Cover of: Multiply by: Multiple haves A Hoon A Hoon
Species Across All Strata:4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B Prevalence Index worksheet:
Percent of Dominant Species That Are OBL, FACW, or FAC: Description Description
That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of:
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 100 x 4 = 400 UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation 1 (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of more in diameter at breast height (DBH).
Prevalence Index worksheet: Total % Cover of:
Total % Cover of: OBL species OBL species FACW species OBL Specie
OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 100 x 4 = 400 UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 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
FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 100 x 4 = 400 UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
FACW species
FACU species 100 x 4 = 400 UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 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
UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
UPL species 0 x 5 = 0 Column Totals: 100 (A) 400 (B) Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
Column Totals:
Prevalence Index = B/A =4 Hydrophytic Vegetation Indicators:1 - Rapid Test for Hydrophytic Vegetation2 - Dominance Test is >50%3 - Prevalence Index is ≤3.0¹4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)Problematic Hydrophytic Vegetation¹ (Explain) 1 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
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 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
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 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
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
al Cover 6
4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of
cover: 6
data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
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) o more in diameter at breast height (DBH), regardless of
be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of
more in diameter at breast height (DBH), regardless of
more in diameter at breast height (DBH), regardless of
height.
Sapling/Shrub – Woody plants, excluding vines, less
than 3 in. DBH and greater than or equal to 3.28 ft (1
m) tall.
Harb All bank account (non-unach) plants, remardless
 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
cover: 4
Woody vine – All woody vines greater than 3.28 ft in
Yes FACU height.
1700 1700
- Lludrophytic
Hydrophytic Vegetation
Present? Yes No
cover: 2

Depth	Matrix		Redox Features		
inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Lo	Textur	e Remarks
0-5	10YR 4/3	100		SIL	
5-20	10YR 5/3	100		SIL	
					-
					
				 -	
				2	
		oletion, RM=R	educed Matrix, MS=Masked Sand Grains.	Locatio	n: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:			li	ndicators for Problematic Hydric Soils ³ :
_ Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
_ Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	. 147, 148)	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	l 48)	(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	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
_ Thick D	ark Surface (A12)		Redox Depressions (F8)		
_ Sandy I	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR	N,	
	A 147, 148)		MLRA 136)		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	2)	³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLI		wetland hydrology must be present,
-	d Matrix (S6)		Red Parent Material (F21) (MLRA 12)		unless disturbed or problematic.
	Layer (if observed)	:		i	·
Туре:	,				
			_	I localada	Sail Brasanto Van Na V
	nches):		_	пуапс	Soil Present? Yes No
emarks:					



Upland data point wauz013_u

Project/Site: ACP	City/County: Augusta Sampling Date: 4-1-16
Applicant/Owner: Daminion	City/County: Augusta Sampling Date: 4-1-16 State: VA Sampling Point: Wahr Olen
Investigator(s): EST/R. Turnball/W. Vaughan	
Landform (hillslope, terrace, etc.): Seep Slope Loc Subregion (LRR or MLRA): LRRS Lat: 38.18563 Soil Map Unit Name: Purcly Silt Iom Are climatic / hydrologic conditions on the site typical for this time of ye Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally pro-	Slope (%): 4-/0 Slope (%): 4-/0 Slope (%): 4-/0 Slope (%): 4-/0 NWI classification: PEM PEM Are "Normal Circumstances" present? Yes No
SOMMANT OF FINDINGS - Attach site map showing	sampling point resultance, transcente, imperiore,
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No
I'M Surface water in areas HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	
Water Marks (B1) Presence of Research Iron Deposits (B3) Thin Muck Surful Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	de Odor (C1)
Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches Yes No Depth Yes No Depth (inches Yes No Depth Yes No No No): 8
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	

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

Sampling Point: war we - w

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30ft, 30ft) 1. none		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2				Total Number of Dominant Species Across All Strata:	2	(B)
4, 5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
6				Prevalence Index worksheet:		
7					Multiply by:	
	_0			OBL species x 1		
50% of total cover:		total cover:		FACW species x 2		
Sapling/Shrub Stratum (Plot size: 30ft x 30ft)	7/2			FAC species x 3		
. Salix nigra						
				FACU species x 4		
		1		UPL species x 5		
				Column Totals: (A)	-	— (B)
				Prevalence Index = B/A = _		
				Hydrophytic Vegetation Indicato		
				✓ 1 - Rapid Test for Hydrophytic		
		-		2 - Dominance Test is >50%	vegotation	
				3 - Prevalence Index is ≤3.0¹		
	10:	= Total Cove	er	4 - Morphological Adaptations	Provide sur	nortino
50% of total cover: 5	20% of	total cover;	2	data in Remarks or on a se		
lerb Stratum (Plot size: 30ft x 30ft)				The second secon		
Rhynchospora Capitellata	80	ves	OBL	Problematic Hydrophytic Vege	tation (Expla	111)
Rhynchospora Capitellata Turrus effusus	10	no	facu			
Vernonia noveboracensis	10	no	Facu	¹ Indicators of hydric soil and wetlan be present, unless disturbed or pro	nd hydrology i oblematic	must
	The state of the state of	TO BE LIVER TO SERVICE	VINCTON	Definitions of Four Vegetation S		Verilla
				Definitions of Four Vegetation S	uata.	
				Tree - Woody plants, excluding vir	nes, 3 in. (7.6	cm) or
				more in diameter at breast height (height.	DBH), regard	less of
				Sapling/Shrub - Woody plants, ex	xcluding vines	less
	-			than 3 in. DBH and greater than or m) tall.	equal to 3.20	311 (1
0	-		-			1
1		Total Cove		Herb – All herbaceous (non-woody of size, and woody plants less than	() plants, regard 3.28 ft tall.	irdless
50% of total cover: <u>50</u> Voody Vine Stratum (Plot size: <u>30F4 x 30F4</u>)	20% of	total cover:_	20	Woody vine – All woody vines gre height.	ater than 3.20	8 ft in
. None	-	-				
•	Charles and the		-			
		-	-1			
				Hydrophytic		
		<u> </u>		Vegetation Present? Yes		
		Total Cove		Present? Yes	МО	
	200/ 05	total cover:				

Sampling Point: Water 00 | e-w

	cription: (Describe	to the de		Redox Feature		or commi	ii tile abselice of ii	idicators.
Depth (inches)	Color (moist)	%	Color (mois		Type	Loc ²	Texture	Remarks
0-16	10vr 3/1	90	2.5x 3/6	: 16	C	PL	SL.	
16-20	2.5 y 5/2		10yr 4/6			M	SCL_	
	oncentration, D=Dep	letion, RN	/=Reduced Matri	x, MS=Masked	d Sand Gr	ains.		re Lining, M=Matrix.
	Indicators:							for Problematic Hydric Soils ³ :
Black H Hydrogo Stratifie 2 cm Mo Deplete Thick D Sandy M MLR. Sandy F Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (I A 147, 148) Gleyed Matrix (S4) Redox (S5) I Matrix (S6)	LRR N,	Polyvalu Thin Da Loamy 0 Deplete Redox 0 Deplete Redox 0 Iron-Mai	urface (S7) ue Below Surfark Surface (S9) Gleyed Matrix (F3) Dark Surface (F4) Dark Surface (F4) Depressions (F4) nganese Mass A 136) Surface (F13) Int Floodplain S	(MLRA 1) (MLRA 1) (F2) (F6) (F7) (8) (es (F12) (MLRA 13)	47, 148) LRR N, 6, 122)	, 148) Coast	Muck (A10) (MLRA 147) Prairie Redox (A16) LRA 147, 148) nont Floodplain Soils (F19) LRA 136, 147) Parent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) ors of hydrophytic vegetation and hydrology must be present, is disturbed or problematic.
Туре:	Layer (if observed):							
Depth (in Remarks:	ches):				of get the		Hydric Soll Pres	sent? Yes No



Wetland data point waur001e_w facing north.



Wetland data point waur001e_w facing west.

Project/Site: ACP City/Co	ounty: Augusta Sampling Date: 4-1-16
	State: VR Sampling Point: Waur DO I f . W
Applicant/Owner: Dominion	Otate. The Company on the
Investigator(s): ESI (K. Markham/W. Vaughan) Section	n, Township, Range: Tronz
Landform (hillslope, terrace, etc.): Seep Slope Local relie	
Subregion (LRR or MLRA): LRRS Lat: 38,18514060	Long: 79.43049371 Datum: WGS84
Soil Map Unit Name: Purdy solt loam	NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	
Are Vegetation, Soil, or Hydrology significantly disturb	
Are Vegetation, Soil, or Hydrology naturally problemate	
SUMMARY OF FINDINGS - Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	to the Samulad Asan
V- V N-	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Wilding a Victorian
ran within 24 hours wowan: seep	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (E	
High Water Table (A2) Hydrogen Sulfide Odo	
Saturation (A3) Oxidized Rhizosphere	
Water Marks (B1) Presence of Reduced	
Sediment Deposits (B2) Recent Iron Reduction	
Drift Deposits (B3) Thin Muck Surface (C Algal Mat or Crust (B4) Other (Explain in Rem	at 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Algal Mat or Crust (B4) Other (Explain in Rem 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 Depth (inches):	1
Water Table Present? Yes V No Depth (inches): Sw	face
Saturation Present? Yes No Depth (inches): _Sur	Face Wetland Hydrology Present? Yes No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	vious inspections), if available:
Remarks:	
	*\
	b.

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

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30f4 x 30f4) 1. Acer tubrum		Species?	200	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7		-	_	Total % Cover of: Multiply by:
50% of total cover:		= Total Cover		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30F+ 120F+)	20 /0 01	total cover.		FACW species x 2 =
1. Lonicera Canadensis	25	Ves	FACU	FAC species x 3 =
2. Carpinus caroliniana		ves	FAC	FACU species x 4 =
			-17/10	UPL species x 5 =
3			-	Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8	-			2 - Dominance Test is >50%
9	75	Total Cove	-	3 - Prevalence Index is ≤3.01
50% of total cover: 17,5				4 - Morphological Adaptations ¹ (Provide supporting
	20 % 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 30f+ x 30f+) 1. Rosa Multiflora	<	no	FACL	Problematic Hydrophytic Vegetation1 (Explain)
1. Kosa Militara	110		FACW	
2. Viola cucullata 3. Dryppteris intermedia	10	no		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 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				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5		Total Covertotal cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30f+ x30f+)			10.00	height.
1. None			-	
2		811-1111	-	
		74-1-1-12		
	-			
			en en en	Hydrophytic
3.				Hydrophytic Vegetation Present? Yes No

Sampling Point: Waur DOIF-W

SOIL

	Matrix	to the de	pth needed to document	x Feature		or commi	the absence of	mulcators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type	Loc2		Remarks
0-8	10yr 2/1	100					Silty L	
8-20	10yr 4/1	90	10yr 5/6	10			SCL	
		pletion, RM	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	²Location: PL=F	Pore Lining, M=Matrix.
Histoso Histic E Black H Hydrogo Stratifie 2 cm M Deplete Thick D Sandy I MLR Sandy I Stripped	Indicators: (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surfar ark Surface (A12) Mucky Mineral (S1) (A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed	LRR N,	Dark Surface Polyvalue Be Thin Dark St Loamy Gleyt Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangar MLRA 13 Umbric Surfa Piedmont Fle	elow Surface (S9 ed Matrix (F3) surface (If rk Surface (If rk Surface (Essions (F leese Mass (F)) ace (F13)	(F2) (F6) (F7) (F8) (F8) (F12) (MLRA 13)	47, 148) LRR N, 6, 122)		ors for Problematic Hydric Soils ³ : In Muck (A10) (MLRA 147) Inst Prairie Redox (A16) MLRA 147, 148) Idmont Floodplain Soils (F19) MLRA 136, 147) I Parent Material (TF2) Iy Shallow Dark Surface (TF12) I er (Explain in Remarks) Autors of hydrophytic vegetation and land hydrology must be present, less disturbed or problematic.
Depth (in Remarks:	ches):						Hydric Soll Pr	resent? Yes V No



Wetland data point waur001f_w facing northeast.



Wetland data point waur001f_w facing northwest.

Project/Site: ACP City/County: Applicant/Owner: Deminion Investigator(s): FST (K Markham / L., Vaughan) Section, Towns Landform (hillslope, terrace, etc.): htts/ope Local relief (concar Subregion (LRR or MLRA): LRRS Lat: 38.185097/0 Soil Map Unit Name: Purdy Silt Loom Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation, Soil, or Hydrology significantly disturbed? Are Vegetation, Soil, or Hydrology naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling p	No (If needed, explain any answers in Remarks.) Slope (%): Slope (%): Datum: UGS84 No (If no, explain in Remarks.) No (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No Is the So	ampled Area Wetland? Yes No _X
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Livir Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Water Table Present? Yes No /_ Depth (inches): // Inches Saturation Present? Yes No /_ Depth (inches): // Inches (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection)	_ Wetland Hydrology Present? Yes No _★
Remarks: CNR Past 14 inches	

7001 3001	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30ftx 30ft)	-	Species?		Number of Dominant Species
1. Prunus Serotina	10	yes	Facu	That Are OBL, FACW, or FAC: (A)
2. Quercus rubra	20	yes	Facu	Total Number of Dominant
3. Liriodendron tulipifera		yes	Faces	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 37.5 (A/B)
6				
7				Prevalence Index worksheet:
	50	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 25	20% of	total cover:	10	OBL species O x 1 = O
Sapling/Shrub Stratum (Plot size: 30 f+ x 30f+)				FACW species
1. Fagur grandifolia	5	ves	Facu	FAC species x3 = 30
2. Carpinus caroliniana	Š	ves	Fac	FACU species 56 x4 = 22 4
3. Lindera benzaia	112		ACCURATE THE PARTY OF THE PARTY	UPL species 20 x 5 = 100
In the same of the		462	raca	Column Totals: 96 (A) 374 (B)
4				
5				Prevalence Index = B/A = 3.96
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0¹
	20	= Total Cove	r	
50% of total cover: 16	20% of	total cover:	4	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 30ft x 70f+)			THE PAIN	data in Remarks or on a separate sheet)
1. Diphosiostrum digitatum	20	ves	LPL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Polystichum acrostichoides	1	700	Facu	
3. del st. cham delost, chaides			ALCOHOLD TO	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.			Control of the Contro	Definitions of Four Vegetation Strata:
5			CONTRACTOR OF STREET	
6			77777	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of height.
7				
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: 10.5	_ 20% of	total cover:_	2.1_	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30ft × 30ft)				height.
1. Smiles rotundifolia	2	1605	tac	
2.		1		
3				
4.			197	entro Moderna
	-		7	Hydrophytic
Adaptate and the second	The state of the s			Vegetation Present? Yes No X
5.	5			
Adaptate and the second	_ 5_ :	= Total Cove	٢,	

Profile Desc	cription: (Describe	to the dep	th needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			Feature		Loc²	Texture	Rema	rka
(inches) 6-2	Color (moist)	1000	Color (moist)	%	Type	LOC	SL	uncoated	
	10,01/2	100					SL	UNCOUTER	Sprea graces
2-8	10yr 3/3	100	10 <10	5	-	- 11			
8-14	10yr 4/6	95	10 yr 5/8		_C_	M	SL		
-	18V	-				10.	-		-
	-		,				+	-	
	-			-					obsetts to the
				_	-		-	-	
		- No. 10		_				The same of the sa	
									-
		oletion, RM	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL	=Pore Lining, M=Mai ators for Problemati	trix.
Hydric Soil Histosol			Dark Surface	(57)				cm Muck (A10) (MLF	
	pipedon (A2)		Polyvalue Bel		ce (S8) (N	ILRA 147,		oast Prairie Redox (A	
Black H	istic (A3)		Thin Dark Sur	rface (S9)	(MLRA 1			(MLRA 147, 148)	
	en Sulfide (A4) d Layers (A5)		Loamy Gleye Depleted Mat		F2)		_ P	iedmont Floodplain S (MLRA 136, 147)	ioils (F19)
- A Committee of the Co	uck (A10) (LRR N)		Redox Dark S		6)		R	ed Parent Material (7	F2)
Deplete	d Below Dark Surfac	ce (A11)	Depleted Dar	k Surface	(F7)			ery Shallow Dark Sur	
	ark Surface (A12)	DDN	Redox Depre			DD N	_ 0	ther (Explain in Rem	arks)
	Mucky Mineral (S1) (A 147, 148)	LRR N,	Iron-Mangane MLRA 136		es (F12) (LKK N,			
	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (icators of hydrophytic	
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14		etland hydrology mus nless disturbed or pro	
	Matrix (S6) Layer (if observed)						u u	niess disturbed or pro	blematic.
Type:	Layer (ii observed)								
10-14-50-00-0	ches):						Hydric Soil	Present? Yes	NoX_
Remarks:		William						ZO SUM TO THE	



Upland data point waur001_u facing east.



Upland data point waur001_u facing south.

Project/Site: ACP	County: Augusta Sampling Date: 4-1-16
Applicant/Owner: Daminian	County: Augusta Sampling Date: 4-1-16 State: V/A Sampling Point: Waurd Olen
Investigator(s): EST/R. Turnball/W. Vaughan Sec	
Landform (hillslope, terrace, etc.): Seep Slope Local results Subregion (LRR or MLRA): LRRS Lat: 38.1856392 Soil Map Unit Name: Purcly Silt Ioam Are climatic / hydrologic conditions on the site typical for this time of year? Are Vegetation, Soil, or Hydrology significantly distractive distraction, Soil, or Hydrology naturally problem	Slope (%): 4-10 Long: 79. 4306G367 Datum: WGS8H NWI classification: PEM Yes No (If no, explain in Remarks.) urbed? Are "Normal Circumstances" present? Yes No No
SUMMARY OF FINDINGS - Attach site map showing sa	inpling point locations, transcets, important reatures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No
In Surface water in areas	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Water Marks (B1) Presence of Reduct Sediment Deposits (B2) Recent Iron Reduct Drift Deposits (B3) Thin Muck Surface Algal Mat or Crust (B4) Other (Explain in R) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Dodor (C1) Drainage Patterns (B10) Drainage
Field Observations: Surface Water Present? Water Table Present? Saturation Present? Yes No Depth (inches): Yes No Depth (inches):	8
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	

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

Sampling Point: war we - w

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30ft, 30ft) 1. none		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2				Total Number of Dominant Species Across All Strata:	2	(B)
4, 5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
6				Prevalence Index worksheet:		
7					Multiply by:	
	_0			OBL species x 1		
50% of total cover:		total cover:		FACW species x 2		
Sapling/Shrub Stratum (Plot size: 30ft x 30ft)	7/2			FAC species x 3		
. Salix nigra						
				FACU species x 4		
		1		UPL species x 5		
				Column Totals: (A)	-	— (B)
				Prevalence Index = B/A = _		
				Hydrophytic Vegetation Indicato		
				✓ 1 - Rapid Test for Hydrophytic		
		-		2 - Dominance Test is >50%	vegotation	
				3 - Prevalence Index is ≤3.0¹		
	10:	= Total Cove	er	4 - Morphological Adaptations	Provide sur	nortino
50% of total cover: 5	20% of	total cover;	2	data in Remarks or on a se		
lerb Stratum (Plot size: 30ft x 30ft)				The second secon		
Rhynchospora Capitellata	80	ves	OBL	Problematic Hydrophytic Vege	tation (Expla	111)
Rhynchospora Capitellata Turrus effusus	10	no	facu			
Vernonia noveboracensis	10	no	Facu	¹ Indicators of hydric soil and wetlan be present, unless disturbed or pro	nd hydrology i oblematic	must
	The state of the state of	TO BE LIVER TO SERVICE	VINCTON	Definitions of Four Vegetation S		Verilla
				Definitions of Four Vegetation S	uata.	
				Tree - Woody plants, excluding vir	nes, 3 in. (7.6	cm) or
				more in diameter at breast height (height.	DBH), regard	less of
				Sapling/Shrub - Woody plants, ex	xcluding vines	less
	-			than 3 in. DBH and greater than or m) tall.	equal to 3.20	311 (1
0	-		-			1
1		Total Cove		Herb – All herbaceous (non-woody of size, and woody plants less than	() plants, regard 3.28 ft tall.	irdless
50% of total cover: <u>50</u> Voody Vine Stratum (Plot size: <u>30F4 x 30F4</u>)	20% of	total cover:_	20	Woody vine – All woody vines gre height.	ater than 3.20	8 ft in
. None	-	-				
•	Charles and the		-			
		-	-1			
				Hydrophytic		
		<u> </u>		Vegetation Present? Yes		
		Total Cove		Present? Yes	МО	
	200/ 05	total cover:				

Sampling Point: Waur001e-w

Depth	cription: (Describe Matrix	11.00	Rec	dox Feature				
inches)	Color (moist)	%	Color (moist)	%	Type	Loc ²		Remarks
0-16	10yr 3/1	90	2.5x 3/6	10		PL	L	
16-20	2.5 y 5/2	60	10,5 4/6	40			SCL _	W)
	oncentration, D=Dep	oletion, RM	/=Reduced Matrix, I	MS=Masked	Sand Gra	ains.		re Lining, M=Matrix. for Problematic Hydric Soils³:
Histosol Histic E Black H Hydroge Stratifie 2 cm Me Deplete Thick D Sandy M MLR Sandy G Stripped	pipedon (A2) pipedon (A2) pistic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (i A 147, 148) Gleyed Matrix (S4) Redox (S5) I Matrix (S6)	LRR N,	Dark Surfa Polyvalue B Thin Dark S Loamy Gle Depleted M Redox Dari Depleted D Redox Dep Iron-Manga MLRA 1 Umbric Sur	Below Surface (S9 yyed Matrix (F3) (Tatrix (F3) k Surface (Fark Surface (Fanese Mass 136) (F13)	(MLRA 1) (MLRA 1) (F2) (F6) (F7) (B) (E) (F12) (I	47, 148) LRR N, 6, 122)	2 cm M Coast (ML Piedm (ML Red P Very S Other 3Indicato wetlan wetlan	Muck (A10) (MLRA 147) Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F19) RA 136, 147) arent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) rs of hydrophytic vegetation and ad hydrology must be present, a disturbed or problematic.
Туре:	Layer (if observed)						Hydric Soil Pres	sent? Yes No
emarks:	ches):						nyunc don Free	163 163



Wetland data point waur001e_w facing north.



Wetland data point waur001e_w facing west.

Project/Site: ACP City/Co	ounty: Augusta Sampling Date: 4-1-16
	State: VR Sampling Point: Waur DO I f . W
Applicant/Owner: Dominion	Otate. The Company on the
Investigator(s): ESI (K. Markham/W. Vaughan) Section	n, Township, Range: Tronz
Landform (hillslope, terrace, etc.): Seep Slope Local relie	
Subregion (LRR or MLRA): LRRS Lat: 38,18514060	Long: 79.43049371 Datum: WGS84
Soil Map Unit Name: Purdy solt loam	NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	
Are Vegetation, Soil, or Hydrology significantly disturb	
Are Vegetation, Soil, or Hydrology naturally problemate	
SUMMARY OF FINDINGS - Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	to the Samulad Asan
V- V N-	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Wilding a Victorian
ran within 24 hours wowan: seep	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (E	
High Water Table (A2) Hydrogen Sulfide Odo	
Saturation (A3) Oxidized Rhizosphere	
Water Marks (B1) Presence of Reduced	
Sediment Deposits (B2) Recent Iron Reduction	
Drift Deposits (B3) Thin Muck Surface (C Algal Mat or Crust (B4) Other (Explain in Rem	at 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Algal Mat or Crust (B4) Other (Explain in Rem 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 Depth (inches):	1
Water Table Present? Yes V No Depth (inches): Sw	face
Saturation Present? Yes No Depth (inches): _Sur	Face Wetland Hydrology Present? Yes No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	vious inspections), if available:
Remarks:	
	*\
	b.

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

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30f4 x 30f4) 1. Acer tubrum		Species?	200	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
6				Prevalence Index worksheet:
7		-	_	Total % Cover of: Multiply by:
50% of total cover:		= Total Cover		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30F+ 120F+)	20 /0 01	total cover.		FACW species x 2 =
1. Lonicera Canadensis	25	Ves	FACU	FAC species x 3 =
2. Carpinus caroliniana		ves	FAC	FACU species x 4 =
			-17/10	UPL species x 5 =
3			-	Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8	-			2 - Dominance Test is >50%
9	75	Total Cove	-	3 - Prevalence Index is ≤3.01
50% of total cover: 17,5				4 - Morphological Adaptations ¹ (Provide supporting
	20 % 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 30f+ x 30f+) 1. Rosa Multiflora	<	no	FACL	Problematic Hydrophytic Vegetation1 (Explain)
1. Kosa Militara	110		FACW	
2. Viola cucullata 3. Dryppteris intermedia	10	no		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 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				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5		Total Covertotal cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30f+ x30f+)			10.00	height.
1. None			-	
2		811-1111	-	
		74-1-1-12		
	-			
			en en en	Hydrophytic
3.				Hydrophytic Vegetation Present? Yes No

Sampling Point: Waur DOIF-W

SOIL

	Matrix	to the de	pth needed to document	x Feature		or commi	the absence of	mulcators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type	Loc2		Remarks
0-8	10yr 2/1	100					Silty L	
8-20	10yr 4/1	90	10yr 5/6	10			SCL	
		pletion, RM	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	²Location: PL=F	Pore Lining, M=Matrix.
Histoso Histic E Black H Hydrogo Stratifie 2 cm M Deplete Thick D Sandy I MLR Sandy I Stripped	Indicators: (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surfar ark Surface (A12) Mucky Mineral (S1) (A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed	LRR N,	Dark Surface Polyvalue Be Thin Dark St Loamy Gleyt Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangar MLRA 13 Umbric Surfa Piedmont Fle	elow Surface (S9 ed Matrix (F3) surface (If rk Surface (If rk Surface (Essions (F leese Mass (F)) ace (F13)	(F2) (F6) (F7) (F8) (F8) (F12) (MLRA 13)	47, 148) LRR N, 6, 122)		ors for Problematic Hydric Soils ³ : In Muck (A10) (MLRA 147) Inst Prairie Redox (A16) MLRA 147, 148) Idmont Floodplain Soils (F19) MLRA 136, 147) I Parent Material (TF2) Iy Shallow Dark Surface (TF12) I er (Explain in Remarks) Autors of hydrophytic vegetation and land hydrology must be present, less disturbed or problematic.
Depth (in Remarks:	ches):						Hydric Soll Pr	resent? Yes V No



Wetland data point waur001f_w facing northeast.



Wetland data point waur001f_w facing northwest.

Project/Site: ACP City/County: Applicant/Owner: Deminion Investigator(s): FST (K Markham / L., Vaughan) Section, Towns Landform (hillslope, terrace, etc.): htts/ope Local relief (concar Subregion (LRR or MLRA): LRRS Lat: 38.185097/0 Soil Map Unit Name: Purdy Silt Loom Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation, Soil, or Hydrology significantly disturbed? Are Vegetation, Soil, or Hydrology naturally problematic? SUMMARY OF FINDINGS — Attach site map showing sampling p	No (If needed, explain any answers in Remarks.) Slope (%): Slope (%): Datum: UGS84 No (If no, explain in Remarks.) No (If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No Is the So	ampled Area Wetland? Yes No _X
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Livir Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Water Table Present? Yes No /_ Depth (inches): // Inches Saturation Present? Yes No /_ Depth (inches): // Inches (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection)	_ Wetland Hydrology Present? Yes No _★
Remarks: CNR Past 14 inches	

7001 3001	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30ftx 30ft)	-	Species?		Number of Dominant Species
1. Prunus Serotina	10	yes	Facu	That Are OBL, FACW, or FAC: (A)
2. Quercus rubra	20	yes	Facu	Total Number of Dominant
3. Liriodendron tulipifera		yes	Faces	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 37.5 (A/B)
6				
7				Prevalence Index worksheet:
	50	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 25	20% of	total cover:	10	OBL species O x 1 = O
Sapling/Shrub Stratum (Plot size: 30 f+ x 30f+)				FACW species
1. Fagur grandifolia	5	ves	Facu	FAC species x3 = 30
2. Carpinus caroliniana	Š	ves	Fac	FACU species 56 x4 = 22 4
3. Lindera benzaia	112		ACCURATE TO THE RESIDENCE OF THE PARTY OF TH	UPL species 20 x5= 100
In the same of the		462	raca	Column Totals: 96 (A) 374 (B)
4				
5				Prevalence Index = B/A = 3.96
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0¹
	20	= Total Cove	r	
50% of total cover: 16	20% of	total cover:	4	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 30ft x 70f+)			THE PAIN	data in Remarks or on a separate sheet)
1. Diphosiostrum digitatum	20	ves	LPL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Polystichum acrostichoides	1	700	Facu	
3. del st. cham delost, chaides			ALCOHOLD TO	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.			Control of the Contro	Definitions of Four Vegetation Strata:
5			CALL LINE	
6			77777	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of height.
7				
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: 10.5	_ 20% of	total cover:_	2.1_	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30ft × 30ft)				height.
1. Smiles rotundifolia	2	1605	tac	
2.		1		
3				
4.			197	entro Moderna
	-		7	Hydrophytic
Adaptate and the second	The state of the s			Vegetation Present? Yes No X
5.	5			
Adaptate and the second	_ 5_ :	= Total Cove	٢,	

Profile Desc	cription: (Describe	to the dep	th needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			Feature		Loc²	Texture	Rema	rka
(inches) 6-2	Color (moist)	1000	Color (moist)	%	Type	LOC	SL	uncoated	
	10,01/2	100					SL	UNCOUTER	Sprea graces
2-8	10yr 3/3	100	10 <10	5	-	- 11			
8-14	10yr 4/6	95	10 yr 5/8		_C_	M	SL		
-	18V	-				10.	-		-
	-		,				+	-	
	-			-					obsetts to the
				_	-		-	-	
		- No. 10		_				The same of the sa	
									-
		oletion, RM	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL	=Pore Lining, M=Mai ators for Problemati	trix.
Hydric Soil Histosol			Dark Surface	(57)				cm Muck (A10) (MLF	
	pipedon (A2)		Polyvalue Bel		ce (S8) (N	ILRA 147,		oast Prairie Redox (A	
Black H	istic (A3)		Thin Dark Sur	rface (S9)	(MLRA 1			(MLRA 147, 148)	
	en Sulfide (A4) d Layers (A5)		Loamy Gleye Depleted Mat		F2)		_ P	iedmont Floodplain S (MLRA 136, 147)	ioils (F19)
- A Committee of the Co	uck (A10) (LRR N)		Redox Dark S		6)		R	ed Parent Material (7	F2)
Deplete	d Below Dark Surfac	ce (A11)	Depleted Dar	k Surface	(F7)			ery Shallow Dark Sur	
	ark Surface (A12)	DDN	Redox Depre			DD N	_ 0	ther (Explain in Rem	arks)
	Mucky Mineral (S1) (A 147, 148)	LRR N,	Iron-Mangane MLRA 136		es (F12) (LKK N,			
	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (icators of hydrophytic	
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14		etland hydrology mus nless disturbed or pro	
	Matrix (S6) Layer (if observed)						u u	niess disturbed or pro	blematic.
Type:	Layer (ii observed)								
10-14-50-00-0	ches):						Hydric Soil	Present? Yes	NoX_
Remarks:		William						ZO SUM TO THE	



Upland data point waur001_u facing east.



Upland data point waur001_u facing south.

Project/Site: Atlantic Coast Pipeline	City/C	county: Augusta		Sampling Date: 9/20/2016	
Applicant/Owner: DOMINION			State: VA	_ Sampling Point: waua408f_w	
	Section				
Landform (hillslope, terrace, etc.): Depression					
Subregion (LRR or MLRA): S					
Soil Map Unit Name: Craigsville fine sandy loa	m		NWI classifica	ntion: None	
Are climatic / hydrologic conditions on the site					
Are Vegetation, Soil, or Hydrold	ogy significantly distur	bed? Are "Normal	Circumstances" pr	esent? Yes No	
Are Vegetation, Soil, or Hydrok					
SUMMARY OF FINDINGS – Attach					
Hydrophytic Vegetation Present? Yes	s 🗸 No				
Hydric Soil Present? Yes	No	Is the Sampled Area	V V	No	
	No No	within a Wetland?	res	_ NO	
Remarks:	<u> </u>				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum of one is require	ed: check all that apply)		Surface Soil C		
Surface Water (A1)					
✓ High Water Table (A2)	Drainage Patt				
Saturation (A3)	Hydrogen Sulfide OdOxidized Rhizosphere		Moss Trim Lin		
Water Marks (B1)	Presence of Reduced			Vater Table (C2)	
Sediment Deposits (B2)	Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Burro	ows (C8)	
Drift Deposits (B3)	Thin Muck Surface (0	27)	Saturation Vis	ible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Other (Explain in Rer	narks)	Stunted or Str	essed Plants (D1)	
Iron Deposits (B5)			Geomorphic F		
Inundation Visible on Aerial Imagery (B7)			Shallow Aquita		
Water-Stained Leaves (B9)				phic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutral T	Test (D5)	
Field Observations:	.				
	o Depth (inches):	0			
	o Deptn (inches):	0			
Saturation Present? Yes Ves N	o Depth (inches):	Wetland H	ydrology Present	? Yes No	
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, pre	vious inspections), if avail	able:		
Remarks:					
Wetland hydrology indicators present					

VEGETATION (Four Strata) – Use scientific names of plants

EGETATION (Four Stra	ta) – Use scientific n	ames of	plants.		Sampling Point: waua408f_w
		Absolute	Dominant In	dicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	<u>% Cover</u> 15	Species? Yes	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2					Total Number of Dominant
3		-	·		Species Across All Strata: 1 (B)
4					D
5					Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
_					(145)
7.				<u> </u>	Prevalence Index worksheet:
		15	= Total Cover		Total % Cover of: Multiply by:
	50% of total cover: 7.5		total cover:	3	OBL species x 1 = 0
Sapling/Shrub Stratum (Plot size	15				FACW species x 2 = 0
1					FAC species15 x 3 =45
					FACU species0 x 4 =0
3			·	-	UPL species0 x 5 =0
					Column Totals:15 (A)45 (B)
_					
					Prevalence Index = B/A =3
6			. ———		Hydrophytic Vegetation Indicators:
			· -		1 - Rapid Test for Hydrophytic Vegetation
8			·	-	✓ 2 - Dominance Test is >50%
9		0	·		✓ 3 - Prevalence Index is ≤3.0 ¹
			= Total Cover	0	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover: 0	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1					
2		-	· ——		¹ Indicators of hydric soil and wetland hydrology must
3			· <u> </u>		be present, unless disturbed or problematic.
4			· -		Definitions of Four Vegetation Strata:
5					
6			. <u> </u>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. <u></u>					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		-			Heat. All book account (account to a least a consultation
		0	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 0		total cover:		or orac, and recoup plante loss than orac it tam
Woody Vine Stratum (Plot size			_		Woody vine – All woody vines greater than 3.28 ft in
	,				height.
3			· -		
			. ———		Hydrophytic
5		0			Vegetation Present? Yes No
	50% of total cover: 0		= Total Cover total cover:	_	11036HE. 103 NO
Remarks: (Include photo numb					
	o. o., a doparato o	,			

Sampling Point: waua408f_w

Profile Des	cription: (Describe t	o the de				or confirm	the absenc	e of indicators.)
Depth	Matrix	0/	Redo	x Feature	S1		- .	5 .
(inches)	Color (moist) 2.5 Y 4/2	<u>%</u> 97	Color (moist) 10 YR 6/8	3	Type ¹ C	Loc ² PL/M	Texture SICL	Remarks
0-8	2.5 1 4/2	97	10 1R 0/0			PL/IVI	SICL	
_				·				-
								-
			·				-	- -
								
			· · · · · · · · · · · · · · · · · · ·					
1	- D D - I		A. De de se d'Alereiro M			·	21 1' 1	Di Dani Listan M Matria
	oncentration, D=Deple Indicators:	etion, RIV	I=Reduced Matrix, MS	s=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
-				·				•
Histoso			Dark Surface					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 Mar	trix (F3)				(MLRA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark S	•	,			Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar					Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy N	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 13	86, 122)	³ In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo				8) w	vetland hydrology must be present,
	d Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed):					•	Ť	·
Type: R	ock							
Type	8							
Depth (in	ches): <u></u>						Hydric So	il Present? Yes No
Remarks:								
lydric soil pr	esent							



Photo 1 Wetland data point waua408f_w facing west

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta		Sampling Date: 4/22/2015		
Applicant/Owner: DOMINION				State: VA	Sampling Point: waua408_u		
Investigator(s): Team C		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): Slight							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Craigsville fine san	idy loam			NWI classific	cation: None		
Are climatic / hydrologic conditions on th							
Are Vegetation, Soil, or H							
Are Vegetation, Soil, or F							
SUMMARY OF FINDINGS – At			•	•	•		
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area				
Hydric Soil Present?		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: check	all that apply)		Surface Soil			
Surface Water (A1)	•	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Patterns (B10)			
Saturation (A3)							
Water Marks (B1)		Presence of Reduced	d Iron (C4)				
Sediment Deposits (B2)		Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)		
Drift Deposits (B3)		Thin Muck Surface (0			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	· 	tressed Plants (D1)		
Iron Deposits (B5)	(57)				Position (D2)		
Inundation Visible on Aerial Image	ry (B7)			Shallow Aqu			
Water-Stained Leaves (B9)Aquatic Fauna (B13)				Microtopogra	aphic Relief (D4)		
Field Observations:				FAC-Neutral	1651 (D3)		
	No 🗸	Depth (inches):					
		Depth (inches):					
		Depth (inches):		lvdrology Preser	nt? Yes No		
(includes capillary fringe)							
Describe Recorded Data (stream gauge	e, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ıılable:			
Remarks:							
No wetland hydrology indicators presen	t						
1							

		Absolute	Dominant	Indicator	Dominance Test worksheet:
ree Stratum (Plot size:	30		Species?	Status	
Pinus strobus	,	50	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
Quercus alba		10	No	FACU	That Ale OBE, I AOW, OI I AO.
Tsuga canadensis		5	No	FACU	Total Number of Dominant
3. Tsuga cariaderisis					Species Across All Strata:3 (B)
l					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 33.33333333 (A/B)
S					(702
,					Prevalence Index worksheet:
•		65			Total % Cover of: Multiply by:
	32		= Total Cov	40	OBL species 0 x 1 = 0
	50% of total cover: 32.	20% of	total cover:		
Sapling/Shrub Stratum (Plot siz	e:)				FACW species X Z =
_Acer rubrum		10	Yes	FAC	FAC species x 3 =
). 					FACU species80 x 4 =320
					UPL species0 x 5 =0
3					Column Totals: 90 (A) 350 (B)
ŀ					(A) (B)
5					Prevalence Index = B/A = 3.88
6					
7					Hydrophytic Vegetation Indicators:
					1 - Rapid Test for Hydrophytic Vegetation
					2 - Dominance Test is >50%
9					3 - Prevalence Index is ≤3.0 ¹
	_		= Total Cov	2	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover:5	20% of	total cover:	2	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)				·
Kalmia latifolia		15	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
<u>2</u>		· ———			¹ Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
1					Definitions of Four Vegetation Strata:
5					
					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.					more in diameter at breast height (DBH), regardless of
`` 		-			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
		15	= Total Cov		of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 7.5		total cover:		or oreg, and treedy plante loss than ores it tall
Manda Vina Chatana (Distains	00	20 /0 01	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Noody Vine Stratum (Plot size:)				height.
l					
2					
3					
4					
					Hydrophytic
5					Vegetation Present? Yes No
	_		= Total Cov	0	i resent: res NO
	50% of total cover:0	20% of	total cover:		
Remarks: (Include photo number	ers here or on a separate	sheet.)			1
	·	•			

Sampling Point: waua408_u

	cription: (Describe	to the dept				or confirm	n the abser	nce of indicators.)
Depth	Matrix	%	Redo Color (moist)	x Feature		Loc ²	Texture	Domonto
(inches) 0-3	Color (moist) 10 YR 3/2	100	Color (moist)	%	Type ¹	LOC	SICL	Remarks
3-16	10 YR 6/4	100					SICL	
					-			
	· ·					· ——		
	· .							
							-	
								_
1 _{Tymor} C C	Concentration D. Don	Jotion DM	Daduard Matrix MS	Mookoo			2l costion	DI Dara Lining M Matrix
	Concentration, D=Dep Indicators:	netion, Rivi=	Reduced Matrix, MS	s=iviasked	Sand Gr	ains.		: PL=Pore Lining, M=Matrix. dicators for Problematic Hydric Soils ³ :
•			Dorle Curtoso	(07)				
Histoso			Dark Surface		oo (CO) (N	ALDA 447	440\	_ 2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be Thin Dark Su				140)	Coast Prairie Redox (A16) (MLRA 147, 148)
	listic (A3)				•	147, 140)		Piedmont Floodplain Soils (F19)
	en Sulfide (A4) ed Layers (A5)		Loamy Gleye Depleted Ma		r2)		_	
	uck (A10) (LRR N)		Redox Dark		. 6)			(MLRA 136, 147) Very Shallow Dark Surface (TF12)
	ed Below Dark Surfac	·ρ (Δ11)	Depleted Dar				_	Other (Explain in Remarks)
	Park Surface (A12)	O (7111)	Redox Depre				_	_ Cirior (Explain in Nomano)
	Mucky Mineral (S1) (I	I RR N.	Iron-Mangan			I RR N.		
	A 147, 148)		MLRA 13		00 (1 12) (,		
	Gleyed Matrix (S4)		Umbric Surfa	-	MLRA 13	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):	<u> </u>			_ · / (,	′	annos antansos en prosicination
Type:		-						
	l \						l livelais of	Sail Brasanto Van Na V
	nches):						Hyaric S	Soil Present? Yes No
Remarks:								
lo hydric soi	il present							



Photo 1 Upland data point waua408_u facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 5/17/2016					
Applicant/Owner: Dominion				State: VA	Sampling Point: wauf002e_w		
	Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): Drain							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Monongahela fine	sandy loam, 0	to 7 percent slopes		NWI classific	cation: None		
Are climatic / hydrologic conditions on the	ne site typical fo	or this time of year? Y	'es No	(If no, explain in R	demarks.)		
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances" ¡	oresent? Yes No		
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	ohytic Vegetation Present? Yes No Is the Sampled Area						
Hydric Soil Present?	Yes V	No	Is the Sampled Area	V V	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	No		
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is	required; check	call that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)	_	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Saturation (A3)			• , ,				
Water Marks (B1)		Presence of Reduced					
Sediment Deposits (B2)		Recent Iron Reduction					
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)		tressed Plants (D1)		
Iron Deposits (B5)	m. (D7)			Geomorphic	` '		
Inundation Visible on Aerial Image Water-Stained Leaves (B9)	яу (Б7)			Shallow Aquitard (D3)Microtopographic Relief (D4)FAC-Neutral Test (D5)			
Aquatic Fauna (B13)							
Field Observations:			<u> </u>	<u></u> 1710 110 111	1001 (00)		
	No 🗸	Depth (inches):					
<u> </u>		Depth (inches):					
		Depth (inches):	0 Wetland H	d Hydrology Present? Yes No			
(includes capillary fringe)							
Describe Recorded Data (stream gaug	je, monitoring w	vell, aerial photos, pre	vious inspections), if ava	ıılable:			
Remarks:							
Tromano.							

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wauf002e_w
•	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
· · · · · · · · · · · · · · · · ·		= Total Cover	0	OBL species 25 x 1 = 25
50% of total cover: 0	20% of	total cover:		FACW species 60 x 2 = 120
Sapling/Snrub Stratum (Plot size:)				FAC species 0 x 3 = 0
1	<u> </u>	· · · · · · · · · · · · · · · · · · ·		FACU species 10 x 4 = 40
2				UPL species
3				Column Totals: 95 (A) 185 (B)
4				(A)(D)
5	·			Prevalence Index = B/A =1.94
6				Hydrophytic Vegetation Indicators:
7	-			1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	0			3 - Prevalence Index is ≤3.0 ¹
50% of total cover:		= Total Cover total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
0	20% 01	total cover		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:) 1 Impatiens capensis	60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Scirpus atrovirens	20	Yes	OBL	
3. Ambrosia artemisiifolia	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4 Persicaria sagittata	5	No	OBL	be present, unless disturbed or problematic.
"				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	95			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 47.5		= Total Cover total cover:	r 19	of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:0)	20% 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
4				height.
1				
2				
3				
4				Hydrophytic
5	0			Vegetation Present? Yes No
50% of total cover:		= Total Cover total cover:	0	<u> </u>
30 % of total cover		total cover		
Remarks: (Include photo numbers here or on a separate s	neet.)			

Profile Des	cription: (Describe	to the de				or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Feature	es	. 2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-10	10YR 4/2	93	7.5YR 4/4	7	C	PL/M	CL	
					· <u> </u>			
10-18	10YR 5/1	70	7.5YR 5/6	10	С	M	CL	
			5YR 3/4	20	С	PL/M		
						·		
					· <u></u>	· ——		_
					· ——			-
		· 					2	
	Concentration, D=Dep	letion, RN	1=Reduced Matrix, M	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
-	Indicators:		Davida Occida a	(07)				•
Histoso	ii (A1) Epipedon (A2)		Dark Surface Polyvalue Be) (S2) (I	/II D A 1/17		2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
	:pipedon (A2) listic (A3)		Polyvalue Be				140)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			141, 140)		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		<u>✓</u> Depleted Ma		(Г2)			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		E6)		,	Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	ρ (Δ11)	Depleted Da	,	,			Other (Explain in Remarks)
	Park Surface (A12)	C (A11)	Redox Depre				 '	Other (Explain in Remarks)
	Mucky Mineral (S1) (L	RR N	Iron-Mangan			I RR N		
	A 147, 148)	-1111 14,	MLRA 13		C3 (1 12) (LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa	•	(MIRA 13	86, 122)	³ In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					retland hydrology must be present,
-	d Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed):				, (1	nicos distaisca el presionidad.
Type:	, , ,							
Depth (ir	oches).						Hydric So	il Present? Yes No
							Tiyane oo	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Remarks:								



Photo 1 Wetland data point wauf002 facing south



Photo 2
Wetland data point wauf002 facing west

Project/Site: Atlantic Coast Pipeline			City/Cou	nty: Augusta County		Sampling Date: 5/17/2016	
Applicant/Owner: Dominion					State: VA	Sampling Point: wauf002_u	
		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): Terra							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Monongahela fine	sandy loam, 0	to 7 percent	slopes		NWI classifi	cation: None	
Are climatic / hydrologic conditions on the	ne site typical fo	or this time of	year? Yes	No	(If no, explain in I	Remarks.)	
Are Vegetation, Soil, or	Hydrology	significan	ntly disturbed	d? Are "Norma	I Circumstances"	present? Yes No	
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
Hydrophytic Vegetation Present?	Yes	No 🗸					
Hydric Soil Present?		No 🗸		the Sampled Area	Vaa	No	
Wetland Hydrology Present?	Yes	No 🗸	w	vithin a Wetland?	res	NO	
Remarks:			<u> </u>				
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Indic	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check	k all that appl	ly)		Surface Soi	l Cracks (B6)	
Surface Water (A1)		True Aquatio	Plants (B1	4)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Su	ulfide Odor ((C1)	Drainage Pa	atterns (B10)	
Saturation (A3)		Oxidized Rhi	izospheres	on Living Roots (C3)	C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)		
Water Marks (B1)		Presence of					
Sediment Deposits (B2)				n Tilled Soils (C6)	Crayfish Bu		
Drift Deposits (B3)		Thin Muck S				/isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Expla	ain in Remai	rks)		Stressed Plants (D1)	
Iron Deposits (B5)	···· (DZ)					c Position (D2)	
Inundation Visible on Aerial Image	эгу (В7)				Shallow Aqu		
Water-Stained Leaves (B9)Aquatic Fauna (B13)					FAC-Neutra	raphic Relief (D4)	
Field Observations:					170-110000	1 1031 (D0)	
	No	Denth (inch	196).				
	No V						
	No				dydrology Prese	ent? Yes No	
(includes capillary fringe)						res	
Describe Recorded Data (stream gaug	je, monitoring w	vell, aerial ph	otos, previo	ous inspections), if ava	ailable:		
Remarks:							
None							

Sampling Point: wauf002_u
st worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0
Species Across All Strata:
Percent of Dominant Species 0
That Are OBL, FACW, or FAC:0(A/B) Prevalence Index worksheet:
Prevalence Index worksheet: Total % Cover of: Multiply by:
Total % Cover of:
OBL species
FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) (B)
FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) (B)
FACU species x 4 = UPL species x 5 = Column Totals: (A) (B) Prevalence Index = B/A =
FACU species x 4 = UPL species x 5 = Column Totals: (A) (B) Prevalence Index = B/A =
UPL species x 5 = Column Totals: (A) (B) Prevalence Index = B/A =
Column Totals: (A) (B) Prevalence Index = B/A =
Trevalence index = b/A =
Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
3 - Prevalence Index is ≤3.0¹
tal Cover
data in Remarks or on a separate sheet)
Yes Problematic Hydrophytic Vegetation ¹ (Explain)
Yes
 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.
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.
Lcover: 20
Woody vine – All woody vines greater than 3.28 ft in height.
Hydrophytic Vegetation
tal Cover Present? Yes No V
Leaver: 0

Sampling Point: wauf002_u

	Matrix		Redox Features	3	_		
nches)	Color (moist)		Color (moist) % Type ¹	Loc ²	Texture	Remarks	
0-12 1	10YR 4/3	100			CL		
	contration D_Donl	otion BM-Br	educed Matrix, MS=Masked Sand Grai	21	ocction: DI -	Pore Lining, M=Matrix.	
ydric Soil Inc		ation, Rivi=Re	educed Matrix, MS=Masked Sand Grai	ns. L		ors for Problematic Hydric	Soile ³ :
			D 1 0 ((07)				SOIIS .
_ Histosol (A			Dark Surface (S7)	DA 445 44		m Muck (A10) (MLRA 147)	
_ Histic Epipe			Polyvalue Below Surface (S8) (MI			ast Prairie Redox (A16)	
_ Black Histic			Thin Dark Surface (S9) (MLRA 14	17, 148)		MLRA 147, 148)	
	Sulfide (A4)		Loamy Gleyed Matrix (F2)			dmont Floodplain Soils (F19	3)
_ Stratified L	• • •		Depleted Matrix (F3)			MLRA 136, 147)	
	(A10) (LRR N)		Redox Dark Surface (F6)			y Shallow Dark Surface (TF	12)
	Below Dark Surface	(A11)	Depleted Dark Surface (F7)		Oth	er (Explain in Remarks)	
	Surface (A12)	DD N	Redox Depressions (F8)	DD 11			
	cky Mineral (S1) (L	KK N,	Iron-Manganese Masses (F12) (L	KK N,			
	147, 148)		MLRA 136)	400)	3, ,,		
	eyed Matrix (S4)		Umbric Surface (F13) (MLRA 136			ators of hydrophytic vegetat	
_ Sandy Red			Piedmont Floodplain Soils (F19) (and hydrology must be pres	ent,
_ Stripped M			Red Parent Material (F21) (MLRA	127, 147)	unles	ss disturbed or problematic.	
estrictive Lay	yer (if observed):						
Type: Rock			_				
Depth (inche	es): <u>12</u>		_	l l	Hydric Soil P	resent? Yes N	。 <u> </u>
emarks:							



Photo 1 Upland data point wauf002_u facing north



Photo 2 Upland data point wauf002_u facing east

Project/Site: Atlantic Coast Pipe	eline	City/C	ounty: Augusta County		Sampling Date: 5/17/2016
Applicant/Owner: Dominion			,		_ Sampling Point: wauf001e_w
Investigator(s): SH, SA					
Landform (hillslope, terrace, etc					
Culturation (LDD at MLDA). S	.).	 8 1973642	-79	41682072	Glope (70)
Subregion (LRR or MLRA): Soil Map Unit Name: Buchanar	Lat:	ercent slones	Long:		. None
Are climatic / hydrologic condition					
Are Vegetation, Soil	, or Hydrology	significantly disturb	ped? Are "Normal	Circumstances" p	resent? Yes No
Are Vegetation, Soil	, or Hydrology	_ naturally problema	tic? (If needed, e	explain any answer	s in Remarks.)
SUMMARY OF FINDING	SS – Attach site ma	p showing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Prese	ent? Yes	No			
Hydric Soil Present?	Yes	No No	Is the Sampled Area	V V	No
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO
Remarks:					
Swale in cow pasture, vegetati occuring at time of survey. Are	on and hydrology disturbe a has recieved significant	ed by cattle. Standing rainfall in past two v	g water present mostly in veeks.	n compacted hoofp	rints from cattle. Light rain
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indicat	tors (minimum of two required)
Primary Indicators (minimum o	of one is required; check a	ıll that apply)		Surface Soil 0	` '
✓ Surface Water (A1)	Tr	rue Aquatic Plants (I	314)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)		ydrogen Sulfide Odd		Drainage Patt	
Saturation (A3)			es on Living Roots (C3)	Moss Trim Lir	
Water Marks (B1)		resence of Reduced			Vater Table (C2)
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burro	· · ·
Drift Deposits (B3)		nin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	0	ther (Explain in Ren	iaiks)	Geomorphic F	ressed Plants (D1)
Inundation Visible on Aeri	ial Imagery (R7)			Shallow Aquit	
Water-Stained Leaves (B)					phic Relief (D4)
Aquatic Fauna (B13)	<i>5</i>)			FAC-Neutral	
Field Observations:					(– .)
Surface Water Present?	Yes No [Depth (inches): 0	.5		
Water Table Present?	Yes No [
Saturation Present?	Yes No [n	lydrology Present	t? Yes 🗸 No
(includes capillary fringe)					
Describe Recorded Data (stre Soil was saturated at the surface					
Remarks:	be, standing surface water	mostly in cattle trac	AS. NO Water table obse	iveu	
itemarks.					

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wauf001e_w
•	Absolute	Dominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				matric obe, thow, of the
7		·		Prevalence Index worksheet:
·	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 0		total cover:_	0	OBL species 40 x 1 = 40
Sapling/Shrub Stratum (Plot size: 0)	2070 01	total oover		FACW species30
(FAC species 0 x 3 = 0
1				FACU species0
2				UPL species 0 x 5 = 0
3				70 100
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =1.42
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	r	
50% of total cover:0	20% of	total cover:_	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1. Carex stipata	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juncus effusus	30	Yes	FACW	
3. Scirpus atrovirens	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
<u>. </u>				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
	70	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35		total cover:_		Was design. All was designed and the cooking the cooki
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2.				
3				
4	-			Hydrophytic
5				Vegetation Present? Yes No
0		= Total Cove	^	rieseitt: iesNO
50% of total cover: 0		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe	to the de	pth needed to docur	ment the i	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix		Redo	x Feature		. 2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u> CL	Remarks
0-3	2.5Y 5/2	90	10YR 4/4	10	C	PL/M		_
3-18	2.5Y 6/2	70	10YR 5/6	30	C	PL/M	C	_
								<u> </u>
		-	· -					
	· 							
¹ Type: C=C	Concentration, D=Depl	letion, RM	1=Reduced Matrix, M	S=Masked	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators:	,	•					cators for Problematic Hydric Soils ³ :
Histoso	l (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) (I	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		- 6)			Very Shallow Dark Surface (TF12)
Deplete	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)			
	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) ((LRR N,		
	A 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent N	Material (F	21) (ML R	A 127, 147	7) u	ınless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	nches):						Hydric So	oil Present? Yes No
Remarks:							1	



Photo 1
Wetland data point wauf001e_w facing northwest



Photo 2
Wetland data point wauf001e_w facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: Augusta County	/ Sampling Date: 5/17/2016
Applicant/Owner: Dominion		State: VA Sampling Point: wauf001_u
	Section, Township, Range: N	lo PLSS in this area
Landform (hillslope, terrace, etc.): Terrace		
		0.41682256 Datum: WGS 1984
Soil Map Unit Name: Buchanan fine sandy loam,	2 to 7 percent slopes	NWI classification: None
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norm	al Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		
-		ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No V la the Semulad Area	
Hydric Soil Present? Yes	Is the Sampled Area	Yes No
Wetland Hydrology Present? Yes	No within a Wetland?	resNo
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required;		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)	
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) Algal Mat or Crust (B4)	Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat 01 Crust (B4) Iron Deposits (B5)	Other (Explain in Kemarks)	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:		<u></u>
Surface Water Present? Yes No _	Depth (inches):	
	Depth (inches):	
Saturation Present? Yes No _	_	Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monito)	ring well, aerial photos, previous inspections), if a	/ailable:
(3 3 7		
Remarks:		
No hydrology indicators		

٧

•	Absolute			Dominance Test worksheet:
ree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
		. <u></u>		Total Number of Dominant
				Species Across All Strata: 1 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B
				That Are OBL, FACW, or FAC: (A/B
				Prevalence Index worksheet:
	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 0		total cover:_	0	OBL species0 x 1 =0
0	20 /6 01	total cover		FACW species0 x 2 =0
apling/Shrub Stratum (Plot size:)				FAC species 5 x 3 = 15
		· 		FACU species 85 x 4 = 340
-				UPL species
				100 405
				Column Totals: (A) 403 (B)
				Prevalence Index = B/A = 4.05
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
	0	= Total Cove		3 - Prevalence Index is ≤3.0¹
50% of total cover: 0		total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
lerb Stratum (Plot size:)	2070 01			data in Remarks or on a separate sheet)
Trifolium repens	70	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Poa pratensis	15	No	FACU	
Plantago lanceolata	10	No	UPL	¹ Indicators of hydric soil and wetland hydrology must
	5	No	FAC	be present, unless disturbed or problematic.
Ranunculus repens			-FAC	Definitions of Four Vegetation Strata:
·				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o
				more in diameter at breast height (DBH), regardless o
				height.
				Sapling/Shrub – Woody plants, excluding vines, less
	-			than 3 in. DBH and greater than or equal to 3.28 ft (1
0				m) tall.
 1.		· -		Have All have account (non-woods) plants, regardless
	100	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50		total cover:		
Voody Vine Stratum (Plot size: 0)				Woody vine – All woody vines greater than 3.28 ft in
				height.
·				
•				Hydrophytic
				Vegetation
	0	= Total Cove		Present? Yes No
50% of total cover: 0	20% of	total cover:_	0	
temarks: (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	x Feature:		. 2		
(inches)	Color (moist) 2.5Y 5/2	<u>%</u> 97	Color (moist)	<u>%</u> 3	Type ¹ C	Loc ²	<u>Texture</u> CL	<u>Remarks</u>
0-16		97	10YR 5/6			M	-	
16-18	2.5Y 5/2	80	10YR 5/6	20	С	M	C	
					·-			
¹ Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	I Sand Gr	ains.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil		,	,					ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) (N	/ILRA 147,		Coast Prairie Redox (A16)
Black Hi			Thin Dark Su				- -	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
	ıck (A10) (LRR N)		Redox Dark S					/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar				<u> </u>	Other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depre			LDDN		
	Mucky Mineral (S1) (L \ 147, 148)	KK N,	Iron-Mangane MLRA 136		es (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa		MIRA 13	e 122)	3Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					nless disturbed or problematic.
	Layer (if observed):			(-	/ (,	1	
Type:	,							
• • • • • • • • • • • • • • • • • • • •	ches):						Hydric Soi	I Present? Yes V No No
Remarks:							11,4110 001	<u></u>
ixemaiks.								



Photo 1
Upland data point wauf001_u facing southeast



Photo 2
Upland data point wauf001_u facing northwest

Project/Site: Atlantic Coast Pipeline	City/C	ounty: Augusta County	Sampling Date: 5/25/2016
Applicant/Owner: DOMINION		State	e: VA Sampling Point: wauz007e_w
		on, Township, Range: No PLSS	
Landform (hillslope, terrace, etc.): Hillslope			
Subregion (LRR or MLRA): S			
Soil Map Unit Name: Monongahela fine sandy	oam, 0 to 7 percent slopes	N'	WI classification: None
Are climatic / hydrologic conditions on the site t	pical for this time of year? Y	es No (If no, e	explain in Remarks.)
Are Vegetation, Soil, or Hydrold	gy significantly distur	bed? Are "Normal Circun	nstances" present? Yes No
Are Vegetation, Soil, or Hydrold			
SUMMARY OF FINDINGS – Attach			
Hydrophytic Vegetation Present? Yes	No		
Hydric Soil Present? Yes	<u>✓</u> No	Is the Sampled Area within a Wetland?	Yes No
	<u>✓</u> No	within a wettand:	165 NO
This is a PEM area at bottom of slope.			
HYDROLOGY			
Wetland Hydrology Indicators:			dary Indicators (minimum of two required)
Primary Indicators (minimum of one is require			urface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (parsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odd		rainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosphere		oss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced		ry-Season Water Table (C2)
Sediment Deposits (B2) Drift Deposits (B3)	Recent Iron Reductio Thin Muck Surface (C		rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Ren		tunted or Stressed Plants (D1)
Iron Deposits (B5)	Outor (Explain in Non		eomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		· · · · · · · · · · · · · · · · · · ·	hallow Aquitard (D3)
Water-Stained Leaves (B9)			icrotopographic Relief (D4)
Aquatic Fauna (B13)			AC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
	Depth (inches):	Wetland Hydrolo	ogy Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, mon	toring well, aerial photos, pre	vious inspections), if available:	
Julia (et eath gauge, men	toming from aonial priotos, pro		
Remarks:			

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wauz007e_w
00	Absolute	Dominant Ir		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4		. <u></u>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				- '
7				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species 5 x 1 = 5
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 = 60
1				FAC species 60 x 3 = 180
2				FACU species0 x 4 =0
				UPL species0 x 5 =0
3				Column Totals: 95 (A) 245 (B)
4				(, (,
5		· <u></u>		Prevalence Index = B/A =2.57
6		· ——		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9		·		3 - Prevalence Index is ≤3.0 ¹
0		= Total Cover		4 - Morphological Adaptations ¹ (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				Problematic Hydrophytic Vegetation¹ (Explain)
1. Rumex crispus	60	Yes	FAC	1 Toblematic Hydrophytic Vegetation (Explain)
2. Juncus effusus	30	Yes	FACW	Indicators of hydric soil and watland hydrology must
3. Carex vulpinoidea	5	No	OBL	¹ 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				
o				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11	95	T-1-1-0		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5		= Total Cover total cover:		of size, and woody plants less than 3.26 it tall.
Woody Vine Stratum (Plot size: 30)	20% 01	iolai COVEI		Woody vine – All woody vines greater than 3.28 ft in
Violativi in ordinatum (i lot size.				height.
1		· ——		
2				
3				
4				Hydrophytic
5				Vegetation
		= 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.)			

Profile Desc	ription: (Describe t	o the dep	th 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 ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10YR 4/2	100					SIL	
6-18	10YR 5/2	70	10YR 5/4	30	С	PL/M	SICL	
					-			
1Typo: C-C	ncontration D-Donk	otion PM	=Reduced Matrix, MS		I Sand Gr	nine	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil I		ellon, Rivi	=Reduced Mairix, MS	=iviaskec	Sand Gr	airis.		cators for Problematic Hydric Soils ³ :
-			Dorle Curfoso	(07)				•
Histosol	(A1) ipedon (A2)		Dark Surface Polyvalue Be		oo (CO) (N	NI DA 147		2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
			Polyvalue Be				140)	(MLRA 147, 148)
Black His	n Sulfide (A4)		Loamy Gleye			147, 140)		Piedmont Floodplain Soils (F19)
	Layers (A5)		<u>✓</u> Depleted Mat		r2)		'	(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S		·6)		,	Very Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	rk Surface (A12)	(,,,,	Redox Depre					очто: (<i>2</i> лр.а.т т. т. от.а.т.о)
	lucky Mineral (S1) (L	RR N,	Iron-Mangane			LRR N,		
	. 147, 148)	•	MLRA 136		· / ·	•		
	leyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	3In	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	1aterial (F	21) (MLR	A 127, 147	') ui	nless disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soi	il Present? Yes No
Remarks:							1 -	



Photo 1 Wetland data point WAUZ007e_w facing north



Photo 2
Wetland data point WAUZ007e_w facing east

Project/Site: Atlantic Coast Pipeline	City/0	County: Augusta County	Sampling Date: 5/25/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wauz007_u
	Secti	ion, Township, Range: No PLSS in th	is area
Landform (hillslope, terrace, etc.): Hillslope			
Subregion (LRR or MLRA): S			
Soil Map Unit Name: Monongahela fine sand	y loam, 0 to 7 percent slopes	NWI cl	lassification: None
Are climatic / hydrologic conditions on the site	e typical for this time of year?	Yes No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydro	ology significantly distu	rbed? Are "Normal Circumstar	nces" present? Yes No
Are Vegetation, Soil, or Hydro			
SUMMARY OF FINDINGS – Attach			
Hydrophytic Vegetation Present? Ye	es No		
	es No	Is the Sampled Area	No
Wetland Hydrology Present?	es No	within a Wetland? Yes	NO
Remarks:		1	
Upland area near wetland wauz007.			
HYDROLOGY			
Wetland Hydrology Indicators:			Indicators (minimum of two required)
Primary Indicators (minimum of one is required)			e Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		ely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Oc		age Patterns (B10)
Saturation (A3)		• • • • • • • • • • • • • • • • • • • •	Trim Lines (B16)
Water Marks (B1)	Presence of Reduce		eason Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction		sh Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (ation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re		ed or Stressed Plants (D1)
Iron Deposits (B5)	7)		orphic Position (D2)
Inundation Visible on Aerial Imagery (B7	(1)		w Aquitard (D3)
Water-Stained Leaves (B9)			opographic Relief (D4)
Aquatic Fauna (B13)		FAC-N	Neutral Test (D5)
Field Observations: Surface Water Present? Yes	No Depth (inches):		
	No Depth (inches):		
	No Depth (inches):		Present? Yes No
(includes capillary fringe)			resent? res No
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos, pre	evious inspections), if available:	
Remarks:			

EGETATION (Four Strata) – Use scientific ı	names of	plants.		Sampling Point: wauz007_u
00	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	. ——:	= Total Cove	er O	OBL species0 x 1 =0
50% of total cover:0	20% of	total cover:		FACW species 0
Sapling/Shrub Stratum (Plot size:)				FAC species
1				FACU species 80 x 4 = 320
2				UPL species
3				80 320
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
0		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	40	.,		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phleum pratense	40	Yes	FACU	
2. Poa pratensis	30	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Arctium lappa		Yes		be present, unless disturbed or problematic.
4. Trifolium pratense	10	No	FACU	Definitions of Four Vegetation Strata:
5				Tree Meady plants and disputing 2 in (7.0 cm) as
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
		= Total Cove		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		Present? Yes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: wauz007_u

Depth	Matrix		Redox Features	2	
inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Lo	C ² Textur	e Remarks
0-2	10YR 4/3	100		SIL	
2-18	10YR 5/3	100		SIL	
	• •				
					
					
					
		oletion, RM=R	educed Matrix, MS=Masked Sand Grains.		n: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:			Ir	ndicators for Problematic Hydric Soils ³ :
_ Histoso	l (A1)		Dark Surface (S7)	_	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	48)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	_	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark Surface (F6)	_	Very Shallow Dark Surface (TF12)
	ed Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)	_	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)		
	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR	N,	
	A 147, 148)		MLRA 136)		3
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12		³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127	⁷ , 147)	unless disturbed or problematic.
	Layer (if observed)	:			
Type:			_		
Depth (ir	nches):		<u> </u>	Hydric	Soil Present? Yes No
emarks:					



Photo 1 Upland data point WAUZ007_u facing west



Photo 2
Upland data point WAUZ007_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Augusta Coun	ty Sampling Date: 5/25/2016
Applicant/Owner: DOMINION		State: VA Sampling Point: wauz006e_w
• •	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Hillslope		
		9.40335868 Datum: WGS 1984
Soil Map Unit Name: Purdy silt loam		
		NWI classification: None
Are climatic / hydrologic conditions on the site typic	·	
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norn	nal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed	d, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	e map showing sampling point loca	tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ No Is the Sampled Are	
Hydric Soil Present? Yes	No.	a Yes ✔ No
	within a Wetland?	res No
Remarks:		
This is a PEM field drainage area.		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; of	heck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	 Oxidized Rhizospheres on Living Roots (C3 	
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:	V Danth (inches)	
	Depth (inches):	
	✓ Depth (inches): ✓ Depth (inches): Wetland	Hills deals we Bernando Was W
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): wetiand	d Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor	ng well, aerial photos, previous inspections), if a	vailable:
Domorko		
Remarks:		
İ		

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: wauz006e_w
22	Absolute	Dominant Ir		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cover	•	Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species x 3 =
2				FACU species x 4 =
3				UPL species $0 \times 5 = 0$
4				Column Totals: (A) (B)
5				Dravalance Index: D/A 15
6				Prevalence Index = B/A =1.5
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9.		-		2 - Dominance Test is >50%
<u> </u>	0	= Total Cover		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 0		total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1 Carex vulpinoidea	60	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2 Juncus effusus	30	Yes	FACW	
3. Rumex crispus	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
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	100			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 50		= Total Cover		of size, and woody plants less than 3.28 ft tall.
30	20% of	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Trocay vine citatain (Flot Size.				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
		= 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.)			

Sampling Point: wauz006e_w

Profile Des	cription: (Describe	to the de	pth needed to docur	nent the i	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix		Redo	x Feature	S1	. 2	_	ь .
(inches) 0-3	Color (moist) 10YR 4/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> SIL	Remarks
								_
6-18	10YR 5/2	70	10YR 5/4	30	С	PL/M	SICL	_
								-
	·							
								_
	-							
	·	-			-			
	-							- -
1							2	
	Concentration, D=Dep	letion, RM	I=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
•	Indicators:							cators for Problematic Hydric Soils ³ :
Histoso			Dark Surface	. ,				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)
	ed Layers (A5)		<u>✓</u> Depleted Ma		>			(MLRA 136, 147)
	uck (A10) (LRR N)	(4.4.4)	Redox Dark					Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da				_	Other (Explain in Remarks)
	Park Surface (A12)	DD 11	Redox Depre			(LDD N		
	Mucky Mineral (S1) (L	.KK N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	•	/MI DA 44	00 400)	31	- di
	Gleyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent N	viateriai (F	(IVILR	A 127, 147	<u>r)</u>	unless disturbed or problematic.
	Layer (if observed):							
Type:								.,
Depth (ir	nches):						Hydric Sc	oil Present? Yes No
Remarks:								



Photo 1 Wetland data point WAUZ006e_w facing east



Photo 2
Wetland data point WAUZ006e_w facing north

Applicant/Owner: DOMINION State: VA Sampling Points **maur2006_u** Investigator(s): *Team Z Section, Township, Range, No PLSs in this area Landform (hillstope, terrace, etc.): Hillstope Local relief (concave, convex, none): none Slope (%): 5 Subregion (LRR or MLRA): \$ Lat: \$8.19980026 Long: 79.40340868 Datum; WGS 1984 Soll Map (Int Name: Purity sill loam or Hydrology of particular of this time of year? Yes No (If no. explain in Remarks.) Are Vegetation Soll or Hydrology of Indicators on the site typical for this time of year? Yes No (If no. explain in Remarks.) Are Vegetation Soll or Hydrology of Indicators of Hydrology of Indicators of Indi	Project/Site: Atlantic Coast Pipeline			City/	County: Augusta County	,	Sampling Date: 5/25/2016		
Investigator(s): Team Z	Applicant/Owner: DOMINION					State: VA	Sampling Point: wauz006_u		
Landform (hillslope, terrace, etc.): Hillslope Lat: 38.19908026 Long: -79.40340866 Datum: WGS 1984 Soil Map Unit Name: Purdy silt loam NWI classification: None Are climate / hydrologic conditions on the site typical for this time of year? Yes				Sect	ion, Township, Range: N	o PLSS in this are	ea		
Subregion (LRR or MLRA): S									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Subregion (LRR or MLRA): S	L at:	38.199	08026	Long: -79	.40340866			
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	Soil Map Unit Name: Purdy silt loam				g	NWI classif	fication: None		
Are Vegetation		site typical fo	or this tin	ne of year?					
Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?									
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?									
Hydrophytic Vegetation Present? Yes No Veltand Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) 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 Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Staturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Water Table (Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Hydric Soil Present? Wetland Hydrology Present? Remarks: Upland area near wetland wauz006. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Hydrogen Sulfice Odor (C1) Hydrogen Sulfice Odor (C1) Saturation (A3) Vater Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Trin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Present? Wetland Hydrology Present? Ves No Depth (inches): Surface Water (Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							, , ,		
Wetland Hydrology Present? Yes					Is the Sampled Area				
Remarks: Upland area near wetland wauz006.	Hydric Soil Present?	Yes	_ No	<u> </u>	within a Wetland?	Yes	No		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Secindent Deposits (B2) Prish Presence of Reduced Iron (C4) Sediment Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation provious in available: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Drainage Patterns (B10) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Drainage Patterns (B10) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B16) Sparsely Vegetated Concave Surface (B8) Surface Soil Cracke (B8) Sparsely Vegetated Concave Surface (B10) Sparsely Vegetated Concave Surface (C1) Sparsely Vegetat		res	INO						
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) 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 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) Inon 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 Depth (inches): Water Table Present? Yes No Wetland Hydrology Present? Yes	opiana area near wedana waazooo.								
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Marks (Path Aguatic Plants (B14) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Drainage Patterns (B	HYDROLOGY								
Surface Water (A1)	Wetland Hydrology Indicators:					Secondary India	cators (minimum of two required)		
High Water Table (A2)	Primary Indicators (minimum of one is rec	uired; checl	k all that	apply)		Surface So	il Cracks (B6)		
Saturation (A3)	Surface Water (A1)		True Ac	quatic Plants	(B14)	Drainage Patterns (B10)			
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) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Aquatic Fauna (B13) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Saturation Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
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: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No	· ·				-				
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) Shallow Aquitard (D3) Water-Stained Leaves (B9) Aquatic Fauna (B13) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Staturation Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Staturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Open (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Shallow Aquitard (D3) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Graduate (stream gauge, monitoring well, aerial photos, previous inspections), if available:						-			
Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Shallow Aquitard (D3) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) Factorial Test (D5) Startage Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Out Depth (inches): Saturation Present? Yes Satura									
Inundation Visible on Aerial Imagery (B7)		_	Other (i	explain in Re	emarks)	·	` '		
Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Saturation Present? Yes Yes No Saturation Present? Yes		(B7)							
Aquatic Fauna (B13) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		(3.)							
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present? Yes	No 🗸	Depth	(inches):					
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes					Hydrology Prese	ent? Yes No		
		monitorina v	vell. aeri	al photos, pr	evious inspections), if av	ailable:			
Remarks:		· ·	,	. ,,	, ,,				
	Remarks:								

EGETATION (Four Strata) – Use scientific na	ames or	piants.		Sampling Point: wauz006_u
20	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Descrit of Dominant Chaolog
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover:0		f total cover:_	^	OBL species x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)	_			FACW species0 x 2 =0
1				FAC species0 x 3 =0
2				FACU species100
				UPL species0 x 5 =0
3				Column Totals: 100 (A) 400 (B)
4				V / (/
5				Prevalence Index = B/A =4
6		.		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
0		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	f total cover:_	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phleum pratense	60	Yes	FACU	Floblefilatic Hydrophytic vegetation (Explain)
2. Poa pratensis	30	Yes	FACU	1. Parties of trades and and making hydrology point
3. Trifolium pratense	10	No	FACU	¹ 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				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	-			
11	100	T (=1.0====		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50		= Total Cover f total cover:_		of Size, and woody plants less than 3.20 it tall.
Woody Vine Stratum (Plot size: 30)	20 /0 0.	lulai cuvci		Woody vine – All woody vines greater than 3.28 ft in
. (1 lot size)				height.
1				
2				
3				
4				Hydrophytic
5		<u> </u>		Vegetation
		= Total Cove		Present? Yes No
50% of total cover:0	20% of	f total cover:_	0	
Remarks: (Include photo numbers here or on a separate sl	heet.)			-

Sampling Point: wauz006_u

SOIL

Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	c ² Textu		arks
0-3	10YR 4/3	100		SIL	-	
3-20	10YR 5/4	100		SIL		
		· -				
		. <u> </u>				
		· — — —				
		<u></u>				
		· — — —				
		· — — —		-		
		·				
		letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		on: PL=Pore Lining, M=M	
lydric Soil	Indicators:			I	Indicators for Problema	tic Hydric Soils ³ :
Histosol	(A1)		Dark Surface (S7)	<u>.</u>	2 cm Muck (A10) (MI	_RA 147)
Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairie Redox	(A16)
	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 1		(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 S	urface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)	·	Other (Explain in Rer	, ,
-	ark Surface (A12)	- (Redox Depressions (F8)	·		
	Mucky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12) (LRR	N.		
	A 147, 148)	,	MLRA 136)	,		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	2)	³ Indicators of hydrophyt	ic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology mus	
	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or pro	
	Layer (if observed):		Red Farent Waterial (F21) (WERA 12)	1, 141)	unless disturbed or pro	DDIETHALIC.
	Layer (ii observeu).					
Type:			_			.,
Depth (in	ches):		<u> </u>	Hydric	Soil Present? Yes _	No
Remarks:				•		



Photo 1 Upland data point WAUZ006_u facing north



Photo 2 Upland data point WAUZ006_u facing west

Project/Site: Atlantic Coast Pipeline		City/C	County: Augusta County		Sampling Date: 5/25/2016			
Applicant/Owner: DOMINION		State: VA Sampling Poir						
			on, Township, Range: No					
Landform (hillslope, terrace, etc.): Hillsl								
Subregion (LRR or MLRA): S	L at:	38.19942282	Long: -79.4	017127	Datum: WGS 1984			
Soil Map Unit Name: Buchanan fine sai	ndy loam, 0 to 2	2 percent slopes		NWI classific	cation: None			
Are climatic / hydrologic conditions on the	ne site typical fo	or this time of year? Y	′es No (If no, explain in R	Remarks.)			
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances"	oresent? 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?	Vos V	No			
Wetland Hydrology Present?		No	within a wetianu:	165	NO			
This is a PEM field drainage area.								
HYDROLOGY								
Wetland Hydrology Indicators:					ators (minimum of two required)			
Primary Indicators (minimum of one is				Surface Soil				
Surface Water (A1)		True Aquatic Plants (getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa				
Saturation (A3) Water Marks (B1)		Presence of Reduced	• , ,	Moss Trim L	Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Bur				
Drift Deposits (B3)		Thin Muck Surface (0			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer			itressed Plants (D1)			
Iron Deposits (B5)			,		Position (D2)			
Inundation Visible on Aerial Image	ry (B7)			Shallow Aqu	itard (D3)			
Water-Stained Leaves (B9)					aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra	Test (D5)			
Field Observations:								
		Depth (inches):	2					
		Depth (inches):	2		.,			
Saturation Present? Yes (includes capillary fringe)	No	Depth (inches):	Wetland H	ydrology Presei	nt? Yes V No			
Describe Recorded Data (stream gaug	e, monitoring v	well, aerial photos, pre	evious inspections), if avai	ilable:				
Remarks:								

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

EGETATION (Four St	rata) – U	se scientific r	names of	plants.		Sampling Point: wauz005e_w
	20		Absolute	Dominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:				Species?		Number of Dominant Species
1						That Are OBL, FACW, or FAC: (A)
2						Total Number of Dominant
3			-			Species Across All Strata: (B)
4 5			-			Percent of Dominant Species
5						That Are OBL, FACW, or FAC: (A/B)
6						Prevalence Index worksheet:
/						Total % Cover of: Multiply by:
	E00/ of	total cover: 0		= Total Cove	r O	OBL species 20 x 1 = 20
Conline/Chruh Ctrotum (Dlot		15	20% 01	total cover:_		FACW species 60 x 2 = 120
Sapling/Shrub Stratum (Plot						FAC species 10 x 3 = 30
1						FACU species 0 x 4 = 0
2						UPL species
3						Column Totals: 90 (A) 170 (B)
4				·		
5				·		Prevalence Index = B/A =1.88
6				·		Hydrophytic Vegetation Indicators:
7						1 - Rapid Test for Hydrophytic Vegetation
8				·		✓ 2 - Dominance Test is >50%
9			0			✓ 3 - Prevalence Index is ≤3.0 ¹
	50% of	total cover: 0		= Total Cove total cover:_	^	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:	_	\	20 /6 01	total cover		data in Remarks or on a separate sheet)
1. Juncus effusus		/	60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex vulpinoidea			20	Yes	OBL	
3. Rumex crispus			10	No	FAC	¹ 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
/ o						height.
8 0			-			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) tall.
11			90			Herb – 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:_	18	of size, and woody plants less than 3.20 it tall.
Woody Vine Stratum (Plot si		30	20 /0 01	10101 00 101		Woody vine – All woody vines greater than 3.28 ft in
1.		/				height.
· 2.						
3 4.						
4 5.						Hydrophytic
J			0	= Total Cove		Vegetation Present? Yes No No
	50% of	total cover: 0		total cover:_	0	
Remarks: (Include photo nui						
Tremarks. (melade prioto nai	TIDOTS TICTO	or on a separate	311001.)			

Sampling Point: wauz005e_w

	cription: (Describe	to the de				or confirm	the absence	ce of indicators.)
Depth	Matrix	0/	Redo	x Feature		1 2	T	Damada
(inches) 0-6	Color (moist) 10YR 4/2	<u>%</u> 80	Color (moist) 10YR 5/6	<u>%</u> 20	Type ¹ C	Loc ² PL/M	<u>Texture</u> SIL	Remarks
	· -						-	
6-18	10YR 6/2	70	10YR 5/8	30	C	PL/M	SICL	
	<u> </u>							_
								_
								_
								_
Type: C=C	Concentration, D=Dep	letion RM	1=Reduced Matrix M	S=Masked	 d Sand Gr	ains	² l ocation:	PL=Pore Lining, M=Matrix.
	Indicators:	1001011, 101	1-1 toddood Watrix, W	<u>o-maono</u>	2 04114 01	unio.		cators for Problematic Hydric Soils ³ :
Histoso	l (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	. ,	ice (S8) (I	MLRA 147,		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)		_	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)	- (0.4.4)	Redox Dark	•	•			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da Redox Depre				_	Other (Explain in Remarks)
	Park Surface (A12) Mucky Mineral (S1) (L	RR N	Iron-Mangan			I RR N		
	A 147, 148)	.ixix i 4 ,	MLRA 13		C3 (1 12) (LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa		(MLRA 1:	36. 122)	³ lr	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent I					inless disturbed or problematic.
	Layer (if observed):			,			ĺ	·
Туре:								
	nches):						Hydric Sc	oil Present? Yes No
Remarks:							1 -	



Photo 1
Wetland data point WAUZ005e_w facing northwest



Photo 2Wetland data point WAUZ005e_w facing southeast

Project/Site: Atlantic Coast Pipeline			City/	County: Augusta Count	у	Sampling Date: 5/25/2016		
Applicant/Owner: DOMINION				Sampling Point: wauz005_u				
			Sect	tion, Township, Range: <u></u>	No PLSS in this ar	ea		
Landform (hillslope, terrace, etc.): Hillslop								
Subregion (LRR or MLRA): S								
Soil Map Unit Name: Buchanan fine sand	ly loam, 0 to 2	2 percent	slopes		NWI classi	fication: None		
Are climatic / hydrologic conditions on the	site typical fo	or this tim	e of year?	Yes No	(If no, explain in	Remarks.)		
Are Vegetation, Soil, or H	ydrology	signif	ficantly distu	urbed? Are "Norm	al Circumstances	" present? Yes 🗸 No		
Are Vegetation, Soil, or H								
SUMMARY OF FINDINGS – Att								
Hydrophytic Vegetation Present?	Yes	No	~					
Hydric Soil Present?	Yes			Is the Sampled Area		No		
Wetland Hydrology Present?	Yes	No_	~	within a Wetland?	Yes	No		
Remarks:								
Upland area near wetland wauz005.								
HYDROLOGY								
Wetland Hydrology Indicators:					Secondary Indi	cators (minimum of two required)		
Primary Indicators (minimum of one is re	equired; chec	k all that	apply)		Surface So	oil Cracks (B6)		
Surface Water (A1)		True Aq	uatic Plants	(B14)	Sparsely V	egetated Concave Surface (B8)		
High Water Table (A2)	_	Hydroge	n Sulfide O	dor (C1)	Drainage F	Patterns (B10)		
Saturation (A3)	_	Oxidized	d Rhizosphe	res on Living Roots (C3)) Moss Trim	Lines (B16)		
Water Marks (B1)		Presenc	e of Reduce	ed Iron (C4)	Dry-Seaso	n Water Table (C2)		
Sediment Deposits (B2)		Recent I	ron Reducti	on in Tilled Soils (C6)	(C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)		Thin Mu	ck Surface ((C7)				
Algal Mat or Crust (B4)		Other (E	xplain in Re	emarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)					Geomorph	ic Position (D2)		
Inundation Visible on Aerial Imagery	y (B7)				Shallow Ad	quitard (D3)		
Water-Stained Leaves (B9)					Microtopog	graphic Relief (D4)		
Aquatic Fauna (B13)					FAC-Neutr	al Test (D5)		
Field Observations:								
Surface Water Present? Yes	No	_ Depth (inches):					
Water Table Present? Yes	No	_ Depth (inches):					
	No	_ Depth (inches):	Wetland	Hydrology Pres	ent? Yes No		
(includes capillary fringe) Describe Recorded Data (stream gauge	, monitoring v	well, aeria	al photos, pr	revious inspections), if a	vailable:			
Remarks:								

VEGETATION (Four Strata) – Use scientific names of plants

EGETATION (Four Stra	ata) – Use scie	entific names	of plants.		Sampling Point: wauz005_u
	20	Absolu			Dominance Test worksheet:
Tree Stratum (Plot size:			ver Species?		Number of Dominant Species That Are ORL FACW or FAC: 0 (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:0 (A/B)
6				· · · · · · · · · · · · · · · · · · ·	Prevalence Index worksheet:
1		0	= Total Cov		Total % Cover of: Multiply by:
	50% of total cov	ver: 0 20%	of total cover:	^	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot s	15)			FACW species0 x 2 =0
1		,			FAC species0 x 3 =0
2.					FACU species 100 x 4 = 400
3					UPL species x 5 =
4					Column Totals: (A) (B)
5					Prevalence Index = B/A =4
6					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8					2 - Dominance Test is >50%
9					3 - Prevalence Index is ≤3.0¹
		0	= Total Cov	^	4 - Morphological Adaptations¹ (Provide supporting
	50% of total cov	er: <u>0</u> 20%	of total cover:	:	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	60		E4011	Problematic Hydrophytic Vegetation¹ (Explain)
1. Phleum pratense			Yes Yes	FACU FACU	<u> </u>
2. Poa pratensis 3. Trifolium repens		10	Yes No	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Thiolian repens				TACO	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 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.					
		100	= Total Cov	er	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	50% of total cov	er: 50 20%	of total cover		Washing Allumed wines are tarther 2 20 ft in
Woody Vine Stratum (Plot size	e:30)			Woody vine – All woody vines greater than 3.28 ft in height.
1					
2					
3					
4					Hydrophytic
5					Vegetation
		0	= Total Cov	^	Present? Yes No
	50% of total cov		of total cover:	:	
Remarks: (Include photo num	bers here or on a s	separate sheet.)			

Sampling Point: wauz005_u

SOIL

	cription: (Describe	to tne dept				or confirm	the absence	of indica	ors.)		
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	K Features	SType ¹	Loc ²	Touture		Domos	leo.	
(inches) 0-3	10YR 4/3	100	Color (moist)	%	rype	LOC	<u>Texture</u> SIL		Remar	KS	
	· -										
3-19	10YR 5/4	100					SIL				
		·	_								
		· ——			-						
		· ——			-						
		. <u></u>									
							-	-			
		·									
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: F				-
Hydric Soil	Indicators:						Indic	ators for F	Problemation	: Hydric So	oils³:
Histoso	l (A1)		Dark Surface	(S7)					(A10) (MLR		
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	ILRA 147,	148) (Coast Prairi	e Redox (A	16)	
	listic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 1	47, 148)		
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix (F2)		F	Piedmont F	loodplain So	oils (F19)	
Stratifie	ed Layers (A5)		Depleted Mat					(MLRA 1	36, 147)		
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)				w Dark Surf)
Deplete	ed Below Dark Surface	e (A11)	Depleted Dar				(Other (Expl	ain in Rema	ırks)	
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)						
	Mucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masse	es (F12) (LRR N,					
	A 147, 148)		MLRA 130	•							
	Gleyed Matrix (S4)		Umbric Surfa					dicators of I	nydrophytic	vegetation	and
Sandy	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	.8) we	etland hydr	ology must	be present	,
Strippe	d Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	') ur	less distur	bed or prob	lematic.	
Restrictive	Layer (if observed):										
Туре:											
Depth (ir	nches):						Hydric Soi	I Present?	Yes	No _	
Remarks:							1				



Photo 1
Upland data point WAUZ005_u facing southwest



Photo 2
Upland data point WAUZ005_u facing southeast

Project/Site: Atlantic Coast Pipeline	City/C	ounty: Augusta County	Sampling Date: 5/25/2016				
Applicant/Owner: DOMINION	State: VA Sampling Point: wauz004e_						
		on, Township, Range: No PLSS in t					
Landform (hillslope, terrace, etc.): Floodplain							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Philo silt loam		NWI	classification: None				
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Y	es No (If no, expl	ain in Remarks.)				
Are Vegetation, Soil, or Hydrolo							
Are Vegetation, Soil, or Hydrolo							
SUMMARY OF FINDINGS – Attach							
Lindraphytic Vagatation Brancht?	√ No.	<u> </u>					
	No No	Is the Sampled Area	.				
	✓ No	within a Wetland? Yes	S No				
Remarks:			-				
HADBOLOCA							
HYDROLOGY		Casandan	La diagtana (minimum of tura na minad)				
Wetland Hydrology Indicators:	le abook all that apply		y Indicators (minimum of two required)				
Primary Indicators (minimum of one is required			ce Soil Cracks (B6)				
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (Hydrogen Sulfide Ode		sely Vegetated Concave Surface (B8) age Patterns (B10)				
Saturation (A3)	Oxidized Rhizosphere		Trim Lines (B16)				
Water Marks (B1)	Presence of Reduced		Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reductio		ish Burrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (C		ation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Ren		ed or Stressed Plants (D1)				
Iron Deposits (B5)		Geon	norphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Shall	ow Aquitard (D3)				
Water-Stained Leaves (B9)			topographic Relief (D4)				
Aquatic Fauna (B13)		FAC-	Neutral Test (D5)				
Field Observations:	. 4						
	Depth (inches):						
	Depth (inches):	2					
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology	Present? Yes No				
Describe Recorded Data (stream gauge, moni	oring well, aerial photos, pre	vious inspections), if available:					
Remarks:							

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

/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wauz004e_w
00	Absolute	Dominant I		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:2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				C)
5				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)
				That Are OBL, FACW, or FAC:(A/B)
6 7.				Prevalence Index worksheet:
	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover:0		total cover:	0	OBL species40 x 1 =40
Sapling/Shrub Stratum (Plot size: 15)	2070 01	total oover		FACW species60
1				FAC species0 x 3 =0
2				FACU species 0 x 4 = 0
				UPL species0 x 5 =0
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =1.6
6		· -		Hydrophytic Vegetation Indicators:
7		· ——		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	0			3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 0		= Total Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
30 /0 01 total cover	20% 01	total cover:_		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5) 1 Juncus effusus	60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Carex vulpinoidea	40	Yes	OBL	
			OBL	¹ 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: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
		= Total Cove	^	Present? Yes No No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	Loc ²	Texture	Remarks
0-2	10YR 4/2	100					SIL	
2-18	10YR 5/2	70	10YR 5/8	30	С	PL/M	SIL	
	-						-	
								
		letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be		(S8) (N	ILRA 147,	148) C	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				, <u> </u>	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, ,	Р	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S	, ,)		V	ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	, ,				Other (Explain in Remarks)
	ark Surface (A12)	- ()	Redox Depre				_ ~	(=-4)
	Mucky Mineral (S1) (L	RR N	Iron-Mangan			RR N.		
	A 147, 148)	,	MLRA 13		· (· · – / (·	,		
	Gleyed Matrix (S4)		Umbric Surfa	•	I RΔ 13	6 122)	³ Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					less disturbed or problematic.
	Layer (if observed):		rear arener	iatoriai (i Z	·	A 121, 141	, un	ileas distarbed of problematic.
	Layer (ii observeu).							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point WAUZ004e_w facing northwest



Photo 2Wetland data point WAUZ004e_w facing southeast

Project/Site: Atlantic Coast Pipeline			City/0	County: Augusta County	у	_ Sampling Date: 5/25/2016		
Applicant/Owner: DOMINION		State: VA Sampling Point: wau						
			Sect	ion, Township, Range:	No PLSS in this are	ea		
Landform (hillslope, terrace, etc.): Floodpl								
Subregion (LRR or MLRA): S								
Soil Map Unit Name: Philo silt loam					NWI classif	ication: None		
Are climatic / hydrologic conditions on the	site typical fo	r this tir						
Are Vegetation, Soil, or Hy								
Are Vegetation, Soil, or Hy								
SUMMARY OF FINDINGS – Atta								
		-			,	.,		
Hydrophytic Vegetation Present?	Yes			Is the Sampled Area				
Hydric Soil Present? Wetland Hydrology Present?	Yes			within a Wetland?	Yes	No		
Remarks:	165		<u> </u>					
HYDROLOGY								
Wetland Hydrology Indicators:						cators (minimum of two required)		
Primary Indicators (minimum of one is re-				(5.4.0)	Surface So			
Surface Water (A1)			quatic Plants			egetated Concave Surface (B8)		
High Water Table (A2)		-	en Sulfide Od	oor (C1) res on Living Roots (C3)	_	atterns (B10)		
Saturation (A3) Water Marks (B1)			ce of Reduce	-				
Sediment Deposits (B2)				on in Tilled Soils (C6)	Dry-Season Water Table (C2) i) Crayfish Burrows (C8)			
Drift Deposits (B3)			uck Surface (Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)			Explain in Re		Saturation visible on Aerial imagery (C9) Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	_			,	·	c Position (D2)		
Inundation Visible on Aerial Imagery	(B7)				Shallow Aq			
Water-Stained Leaves (B9)						raphic Relief (D4)		
Aquatic Fauna (B13)					FAC-Neutra	al Test (D5)		
Field Observations:								
	_ No							
Water Table Present? Yes	_ No <u> </u>	Depth	(inches):					
Saturation Present? Yes (includes capillary fringe)	_ No	Depth	(inches):	Wetland	Hydrology Prese	ent? Yes No		
Describe Recorded Data (stream gauge,	monitoring w	vell, aeri	al photos, pr	evious inspections), if a	vailable:			
Domostro								
Remarks:								

'EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wauz004_u
20	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:30)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
				That Ale Obl., FACW, OF FAC (A/B)
				Prevalence Index worksheet:
7	0	Tatal Caus		Total % Cover of: Multiply by:
50% of total cover:0		= Total Cove total cover:_	r 0	OBL species0 x 1 =0
15	20% 01	total cover		FACW species0 x 2 =0
Sapling/Shrub Stratum (Plot size:)				FAC species0 x 3 =0
1				100 400
2				
3				UPL species
4				Column Totals: (A) 400 (B)
5				Prevalence Index = B/A = 4
6				Trevalence mack = Birt =
7				Hydrophytic Vegetation Indicators:
•				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	0	T-1-1-0		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 0		= Total Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
	20% 01	total cover:_		data in Remarks or on a separate sheet)
(Flot Size:	60	V	E4011	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phleum pratense		Yes	FACU	
2. Poa pratensis	30	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Solidago canadensis	10	No	FACU	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 m) tall.
10				iii) taii.
11	400			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:50	20% of	total cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				Underskutie
5.				Hydrophytic Vegetation
-	0	= Total Cove		Present? Yes No
50% of total cover: 0		total cover:_	^	
Remarks: (Include photo numbers here or on a separate s		total bover		
Remarks. (include photo numbers here of on a separate s	neet.)			

Sampling Point: wauz004_u

Profile Des	cription: (Describe	to the dept				or confirm	the absen	nce of indicators.)
Depth	Matrix		Redo	x Feature:	S1	Loc ²	T t	D d .
(inches) 0-3	Color (moist) 10YR 4/3	<u>%</u> 100	Color (moist)	%	Type ¹	LOC	<u>Texture</u> SIL	Remarks
	· -	· 						
3-19	10YR 5/4	100					SIL	
		· ——						
	- 1				-			
	·							
	-	· ——						-
1							2	
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		: PL=Pore Lining, M=Matrix.
-	Indicators:						inc	dicators for Problematic Hydric Soils ³ :
Histoso			Dark Surface				_	_ 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		⊦ 2)			Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mar		>			(MLRA 136, 147)
	uck (A10) (LRR N)	- (0.4.4)	Redox Dark					_ Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Dar					Other (Explain in Remarks)
	Oark Surface (A12)	DD N	Redox Depre			LDDN		
	Mucky Mineral (S1) (L	LKK N,	Iron-Mangan		es (F12) (LKK N,		
	A 147, 148) Gleyed Matrix (S4)		MLRA 13	•	MIDA 12	e 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):		Neu Faieiit ii	ialeriai (i	Z1) (WILK	A 121, 141	<u> </u>	unless disturbed of problematic.
	Layer (II Observeu).							
Type:								.,
Depth (ir	nches):		<u></u>				Hydric S	Soil Present? Yes No
Remarks:								



Photo 1
Upland data point WAUZ004_u facing northeast



Photo 2
Upland data point WAUZ004_u facing northwest

Project/Site: Atlantic Coast Pipeline	;	City/County: Augusta County Sampling Date: 3/11/2016					
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc112e					
Investigator(s): Team C							
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): none Slope							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Weikert-Berks	s channery silt loa	ams, 15 to 25 percent slo	opes, eroded	NWI classific	cation: None		
Are climatic / hydrologic conditions	on the site typica	al for this time of year? Y	res No	(If no, explain in R	Remarks.)		
Are Vegetation, Soil	, or Hydrology _	significantly distur	bed? Are "Normal	Circumstances"	present? Yes No		
Are Vegetation, Soil							
SUMMARY OF FINDINGS							
Hydrophytic Vegetation Present?	Irophytic Vegetation Present? Yes No ✓						
Hydric Soil Present?	Yes V		Is the Sampled Area	V	No		
Wetland Hydrology Present?			within a Wetland?	Yes	NO		
Remarks:							
HADBOLOCA							
HYDROLOGY				Casandaniladia	atora (minimum of two required)		
Wetland Hydrology Indicators:		and all that amply			ators (minimum of two required)		
Primary Indicators (minimum of or		* * * * * * * * * * * * * * * * * * * *	D4.4)	Surface Soil			
Surface Water (A1)		True Aquatic Plants (getated Concave Surface (B8)		
✓ High Water Table (A2)✓ Saturation (A3)		Hydrogen Sulfide OdOxidized Rhizospher		✓ Drainage Pa			
Water Marks (B1)		Presence of Reduced		Moss Trim Lines (B16)Dry-Season Water Table (C2)Crayfish Burrows (C8)			
Sediment Deposits (B2)	-	Recent Iron Reduction	` '				
Drift Deposits (B3)	_	Thin Muck Surface (0		· ·	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	_	Other (Explain in Rer		Stunted or Stressed Plants (D1)			
✓ Iron Deposits (B5)	_		,	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)			
Inundation Visible on Aerial Ir	nagery (B7)						
Water-Stained Leaves (B9)							
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:							
		Depth (inches):					
Water Table Present? Ye	es <u>′</u> No	Depth (inches):	2				
	es <u> / </u>	Depth (inches):	0 Wetland H	lydrology Preser	nt? Yes 🗸 No		
(includes capillary fringe) Describe Recorded Data (stream	gauge monitorin	a well perial photos pre	vious inspections) if ava	ilahle:			
Describe Recorded Data (stream)	gauge, monitoring	g wen, aenai priotos, pre	vious irispections), ii ava	mabic.			
Remarks:							
Wetland hydrology indicators prese	ent				ļ		
					ļ		
					ļ		
					ļ		
					ļ		
					ļ		

EGETATION (Four Strat	ia) – Use scientific na	ames or	piants.		Sampling Point: wader12e_w
	20 .	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL, FACW, or FAC: (A)
2					Total Number of Dominant
3		-			Species Across All Strata: 2 (B)
4					Barrant of Barring of Oracina
5					Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6					(142)
7. <u> </u>					Prevalence Index worksheet:
		0	= Total Cove	<u> </u>	Total % Cover of: Multiply by:
	50% of total cover: 0			_	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size	15	2070 01			FACW species0 x 2 =0
· · ·					FAC species0 x 3 =0
1					FACU species 100 x 4 = 400
2					UPL species 0 x 5 = 0
3					100 400
4					Column Totals:(A)(B)
5					Prevalence Index = B/A =4
6					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8					2 - Dominance Test is >50%
9					3 - Prevalence Index is ≤3.0 ¹
		0	= Total Cove	r	
	50% of total cover: 0	20% of	total cover:_	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:	E				data in Remarks or on a separate sheet)
1. Poa pratensis		80	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Trifolium pratense		20	Yes	FACU	
3					¹ Indicators of hydric soil and wetland hydrology must
4					be present, unless disturbed or problematic.
-					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
		100	= Total Cove	r	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 2.39 ft in
Woody Vine Stratum (Plot size	:)				Woody vine – All woody vines greater than 3.28 ft in height.
1					
2.					
3.					
F					Hydrophytic
D		0	= Total Cove		Vegetation Present? Yes No
	50% of total cover: 0		total cover:_	0	
December (Include the Leavest	0070 01 10101 00101.		total cover		
Remarks: (Include photo numb	oro noro or on a separate s	11001.			

Profile Desc	cription: (Describe t	o the de	oth needed to docun	nent the	indicator	or confirn	n the absence	e of indicators.)
Depth	Matrix		Redox	k Feature	S1			
(inches) 0-6	Color (moist) 2.5 Y 5/3	<u>%</u> 98	Color (moist) 10 YR 4/6	<u>%</u> 2	Type ¹ C	Loc ²	Texture SCL	Remarks
<u> </u>	2.5 1 5/3							
6-18	2.5 Y 4/4	98	10 YR 3/6	2	C	PL	SCL	
·							-	
				-	-		-	
								
								-
				-		· ——		
					-		-	
		etion, RM	l=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indio	cators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	oipedon (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 Mat Redox Dark S		-c)		,	(MLRA 136, 147) Very Shallow Dark Surface (TF12)
	uck (A10) (LRR N) d Below Dark Surface	(Δ11)	Redox Dark s	,	,			Other (Explain in Remarks)
	ark Surface (A12)	, (ATT)	Redox Depre					Other (Explain in Remarks)
	/lucky Mineral (S1) (L	RR N,	Iron-Mangane			LRR N,		
	A 147, 148)	,	MLRA 136		, , ,			
	Gleyed Matrix (S4)		Umbric Surfa		(MLRA 13	36, 122)	³ ln	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	48) w	retland hydrology must be present,
Stripped	l Matrix (S6)		Red Parent M	1aterial (F	21) (MLR	A 127, 147	7) u	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric So	il Present? Yes No
Remarks:								
Hydric soil inc	dicators present							



Photo 1
Wetland data point WAUC112e_w facing northeast



Photo 2
Wetland data point WAUC112e_w facing southwest

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta County		Sampling Date: 3/11/2016		
Applicant/Owner: DOMINION		State: VA Sampling Point: Wall					
Investigator(s): Team C		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): Hill s							
Subregion (LRR or MLRA): S	Lat:	38.1988976	Long: -79.3	3890753	Datum: WGS 1984		
Soil Map Unit Name: Weikert-Berks cha	NWI classific	eation: None					
Are climatic / hydrologic conditions on t	he site typical for	this time of year? Y	res No	(If no, explain in R	emarks.)		
Are Vegetation, Soil, or							
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
					<u>, , , , , , , , , , , , , , , , , , , </u>		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes	No 🗸	Is the Sampled Area				
Wetland Hydrology Present?	Yes		within a Wetland?	Yes	No		
Remarks:		110					
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)	1	True Aquatic Plants (getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa			
Saturation (A3)	(Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Li	ines (B16)		
Water Marks (B1)	F	Presence of Reduced	d Iron (C4)	Dry-Season	Water Table (C2)		
Sediment Deposits (B2)	F	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)			
Drift Deposits (B3)		Thin Muck Surface (C					
Algal Mat or Crust (B4)	(Other (Explain in Rer	narks)				
Iron Deposits (B5)	(- -)			Geomorphic Position (D2)			
Inundation Visible on Aerial Image	ery (B7)			Shallow Aqu			
Water-Stained Leaves (B9)					aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (Do)		
Field Observations: Surface Water Present? Yes	No. 🗸	Depth (inches):					
		Depth (inches):					
		Depth (inches):		Wetland Hydrology Present? Yes No			
(includes capillary fringe)					it: 165 NO		
Describe Recorded Data (stream gauge	ge, monitoring we	ell, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							
No wetland hydrology indicators prese	nt						

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: wauc112_u
	Absolute	Dominant I		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 33.3333333 (A/B)
6				Bassalan as Indansoralist at
7				Prevalence Index worksheet:
	0	= Total Cove	_	Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:_	0	OBL species X I = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species X Z = 00
1				FAC species X 3 = 200
2				
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 3.7
6				1 Tevalence Index = B/T(=
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
o	0	= Total Cove		3 - Prevalence Index is ≤3.0¹
50% of total cover: 0		total cover:_	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)	_	_		data in Remarks or on a separate sheet)
1 Poa pratensis	50	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Panicum virgatum	30	Yes	FAC	
3. Sporobolus sp.	25	Yes		¹ Indicators of hydric soil and wetland hydrology must
4. Andropogon virginicus	20	No	FACU	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
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	125			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 62.5	. ——— '	= Total Cove	~-	of size, and woody plants less than 3.28 ft tall.
00	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 Present? Yes No
		= Total Cove	^	Present? Yes No
50% of total cover:0		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: wauc112_u

Profile Desc	cription: (Describe to	the depth r	needed to docum	ent the indi	cator or confirn	n the ab	osence of indicators.)
Depth	Matrix			Features			
(inches) 0-18	Color (moist) 10 YR 3/4	100	Color (moist)	<u>%</u> T	ype ¹ Loc ²		tture Remarks SL
	-						
¹Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	=Masked Sa	and Grains.	² Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils ³ :
Histosol	I (A1)	-	Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Bel	ow Surface (S8) (MLRA 147 ,	148)	Coast Prairie Redox (A16)
Black H	istic (A3)	-			LRA 147, 148)		(MLRA 147, 148)
	en Sulfide (A4)	-	Loamy Gleye	, ,			Piedmont Floodplain Soils (F19)
	d Layers (A5)	-	Depleted Mat				(MLRA 136, 147)
	uck (A10) (LRR N)	(444)	Redox Dark S		- \		Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Darl		()		Other (Explain in Remarks)
	ark Surface (A12) Mucky Mineral (S1) (LF	DD N	Redox Depres Iron-Mangane		E12\		
	A 147, 148)	λιλ I V ,	MLRA 136		[12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfac	•	RA 136, 122)		³ Indicators of hydrophytic vegetation and
	Redox (S5)	-			(F19) (MLRA 1 4	18)	wetland hydrology must be present,
-	d Matrix (S6)	•			(MLRA 127, 147		unless disturbed or problematic.
	Layer (if observed):			, ,	· · · · · · · · · · · · · · · · · · ·		·
Type:							
	ches):		_			Hvdr	ric Soil Present? Yes No
Remarks:			=			, .	
No hydric soi	l present						
ito ilyano oo	, procent						



Photo 1 Upland data point WAUC112_u facing east



Photo 2
Upland data point WAUC112_u facing south

Project/Site: Atlantic Coast Pipe	eline	City/County: Augusta County Sampling Date: 3/11/2016					
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc					
Investigator(s): Team C		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc							
					Datum: WGS 1984		
Soil Map Unit Name: Fluvaque	nts, nearly level	NWI classific	cation: PUBHh				
Are climatic / hydrologic condition	ons on the site typical	for this time of year?	′es No	(If no, explain in F	Remarks.)		
Are Vegetation, Soil	, or Hydrology	significantly distu	bed? Are "Normal	Circumstances"	present? Yes No		
Are Vegetation, Soil							
					s, important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	No					
Hydric Soil Present?	Yes Yes	No	Is the Sampled Area within a Wetland?	Voc. V	No		
Wetland Hydrology Present?		No	within a wetland?	res	NO		
Remarks:							
Disturbed drainage wetland wi	thin livestock pasture						
HYDROLOGY							
Wetland Hydrology Indicato	rs:				ators (minimum of two required)		
Primary Indicators (minimum o	of one is required; che	eck all that apply)		Surface Soil			
✓ Surface Water (A1)	_		getated Concave Surface (B8)				
High Water Table (A2)		Hydrogen Sulfide Odor (C1)					
Saturation (A3)			• , ,	Moss Trim L	, ,		
Water Marks (B1)		_ Presence of Reduce		Dry-Season	ason Water Table (C2)		
Sediment Deposits (B2)	_	_ Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bur			
Drift Deposits (B3)		_ Thin Muck Surface (0		Saturation V	isible on Aerial Imagery (C9)		
✓ Algal Mat or Crust (B4)	_	_ Other (Explain in Rei	marks)	Stunted or S	Stressed Plants (D1)		
✓ Iron Deposits (B5)				Geomorphic Position (D2)Shallow Aquitard (D3)Microtopographic Relief (D4)			
Inundation Visible on Aeri	ial Imagery (B7)						
Water-Stained Leaves (B	9)						
Aquatic Fauna (B13)				FAC-Neutra	I Test (D5)		
Field Observations:	.,		2				
Surface Water Present?	Yes No		2 0				
Water Table Present?	Yes No		0				
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland F	lydrology Prese	nt? Yes No		
Describe Recorded Data (stre	am gauge, monitorinç	well, aerial photos, pre	evious inspections), if ava	ilable:			
Remarks:	orogont						
Wetland hydrology indicators p	nesent						

		Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)		Species?		Number of Dominant Species
1	,				That Are OBL, FACW, or FAC:0 (A)
2					Total Number of Dominant
3					Species Across All Strata: 1 (B)
4					Develop of Deminent Charles
5					Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
6					
7					Prevalence Index worksheet:
			= Total Cover	_	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species X I = V
Sapling/Shrub Stratum (Plot s	ize:)				FACW species x z =
1					FAC species X3 = 200
2		-			FACU species x 4 =
3					UPL species x 5 = 330
4					Column Totals: (A) (B)
5					Prevalence Index = B/A =3.66
6					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8					2 - Dominance Test is >50%
9		-			3 - Prevalence Index is ≤3.0 ¹
	•		= Total Cover	_	4 - Morphological Adaptations¹ (Provide supporting
	50% of total cover:0	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	00			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Poa pratensis		60	Yes	FACU	: resiemano : i areprijuo vegetanon (2/ipiami)
2. Dactylis glomerata		15	No No	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Juncus effusus		15	No	FACW	be present, unless disturbed or problematic.
4		-			Definitions of Four Vegetation Strata:
5		-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		-			more in diameter at breast height (DBH), regardless of
7					height.
8					Sapling/Shrub – Woody plants, excluding vines, less
9		-			than 3 in. DBH and greater than or equal to 3.28 ft (1
		-			m) tall.
11					Herb - All herbaceous (non-woody) plants, regardless
	50% of total cover: 45		= Total Cover	4.0	of size, and woody plants less than 3.28 ft tall.
	20	20% of	total cover:		Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size	.)				height.
2					
					Hydrophytic
		0			Vegetation Present? Yes No
5			= Total Cover		11000111.
0	50% of total cover:	20% of	total cover:	0	

Profile Des	cription: (Describe t	o the de	oth needed to docur	nent the	indicator	or confirn	n the al	bsence of indicate	ors.)
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Tex	ture	Remarks
0-8	2.5 Y 5/2	98	10 YR 3/6	2	С	PL	•	С	
8-18	10 YR6/1	60	10 YR 4/6	40	С	M	-		
	• ———								
	<u> </u>								
						·	-		
	-		-						
						·	-		
				-		· ——	-		
¹ Type: C=0	Concentration, D=Depl	etion, RM	l=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Loca	ition: PL=Pore Lin	ing, M=Matrix.
	Indicators:		, , , , , , , , , , , , , , , , , , , ,						roblematic Hydric Soils ³ :
Histoso			Dark Surface	(S7)					A10) (MLRA 147)
	Epipedon (A2)		Polyvalue Be		ce (S8) (N	/II RΔ 147.	148)	Coast Prairie	
	Histic (A3)		Thin Dark Su				140)	(MLRA 14	
	en Sulfide (A4)		Loamy Gleye			, ,			oodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma		· —/			(MLRA 13	
	luck (A10) (LRR N)		Redox Dark		- 6)				v Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Da						in in Remarks)
	Oark Surface (A12)	, ,	Redox Depre						,
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan			LRR N,			
	A 147, 148)		MLRA 13						
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ice (F13)	(MLRA 13	6, 122)		³ Indicators of h	ydrophytic vegetation and
	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	18)	wetland hydro	plogy must be present,
-	d Matrix (S6)		Red Parent N					-	ed or problematic.
Restrictive	Layer (if observed):								
Type:									
	nches):						Hyd	ric Soil Present?	Yes No
							yu	THE CONTINUESCINE.	100
Remarks:									
Hydric soil p	resent								



Photo 1
Wetland data point WAUC113e_w facing southwest



Photo 2
Wetland data point WAUC113e_w facing northwest

Project/Site: Atlantic Coast Pipeline	City/County: Augusta Cou	nty Sampling Date: 3/11/2016				
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc113_u				
	Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): Hill slope						
		-79.38580569 Datum: WGS 1984				
Soil Map Unit Name: Buchanan fine sandy loam, 2	2 to 7 percent slopes	NWI classification: None				
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes No	(If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Nor	rmal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology						
		ations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes	No Is the Sampled Ar	_				
	No. 4/					
	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	heck all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C	C3) Moss Trim Lines (B16)				
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)Geomorphic Position (D2)				
Drift Deposits (B3)	Thin Muck Surface (C7)					
Algal Mat or Crust (B4)	Other (Explain in Remarks)					
Iron Deposits (B5)						
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:	V 5 4 (1 1)					
	Depth (inches):					
	Depth (inches):					
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): Wetlar	nd Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspections), if	available:				
Remarks: No wetland hydrology indicators present						
No wettand hydrology indicators present						

/EGETATION (Four Strata) – Use scientific na	ames or	piants.		Sampling Point: wader13_u_	
Tree Stratum (Plot size: 30)	Absolute	Dominant In		Dominance Test worksheet:	
Tree Stratum (Flot Size.		Species?	<u>Status</u>	Number of Dominant Species	
1				That Are OBL, FACW, or FAC:1	(A)
2				Total Number of Dominant	
3				Species Across All Strata: 3	(B)
4		. <u></u> .		Percent of Dominant Species	
5					(A/B)
6					(· /
7				Prevalence Index worksheet:	
	0	= Total Cover		Total % Cover of: Multiply by:	
50% of total cover: 0			0	OBL species x 1 = 0	
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0	
1				FAC species30 x 3 =90	
2		· ·		FACU species70 x 4 =280	
				UPL species0 x 5 =0	
				Column Totals: 100 (A) 370	(B)
4				(//	(5)
5				Prevalence Index = B/A = 3.7	
6				Hydrophytic Vegetation Indicators:	
7		. <u></u> .		1 - Rapid Test for Hydrophytic Vegetation	
8		. <u> </u>		2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
		= Total Cover		4 - Morphological Adaptations ¹ (Provide supp	ortina
50% of total cover:0	20% of	total cover:	0		orang
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)	,
1. Poa pratensis	50	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain	1)
2. Panicum virgatum	30	Yes	FAC		
3. Sporobolus sp.	25	Yes		¹ Indicators of hydric soil and wetland hydrology m	ust
4 Andropogon virginicus	20	No	FACU	be present, unless disturbed or problematic.	
				Definitions of Four Vegetation Strata:	
				Tree – Woody plants, excluding vines, 3 in. (7.6 ci	m) or
6		·		more in diameter at breast height (DBH), regardle	ss of
7				height.	
8		·		Sapling/Shrub – Woody plants, excluding vines,	less
9				than 3 in. DBH and greater than or equal to 3.28 f	
10		. <u></u> .		m) tall.	
11				Herb – All herbaceous (non-woody) plants, regard	dless
	125	= Total Cover		of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 62.5	20% of	total cover:	25	Woody vine All woody vines greater than 2.29 f	i in
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 f height.	t in
1				112.3.11	
2.					
3					
4					
_				Hydrophytic	
5	0			Vegetation Present? Yes No	
50% of total cover: 0		= Total Cover	0	1100ml. 100 100	
0070 01 total 00vc1.		total cover:			
Remarks: (Include photo numbers here or on a separate s	heet.)				

Profile Des	cription: (Describe t	o the depth				or confirm	the abse	ence of indicators.)
Depth	Matrix (acciet)		Redo	x Feature:		12	T	D. word o
(inches) 0-18	Color (moist) 10 YR 3/4	<u>%</u> 100	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Textur</u> SL	re Remarks
0-10	10 113/4							
							-	
					-	· ——		
			_	· ·		· ·		
¹ Type: C=C	Concentration, D=Depl	etion. RM=R	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location	n: PL=Pore Lining, M=Matrix.
	Indicators:	,	,					ndicators for Problematic Hydric Soils ³ :
Histoso			Dark Surface	(\$7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) (N	/II RΔ 1 <i>4</i> 7	148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su		. , .		0, _	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			-1, 1 4 0)		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mat		· <i>-</i> /		_	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark \$:6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(Δ11)	Depleted Dar				_	Other (Explain in Remarks)
	ark Surface (A12)	(7(1)	Redox Depre				_	Other (Explain in Remarks)
	Mucky Mineral (S1) (L	RRN	Iron-Mangan			IRRN		
	A 147, 148)	ixix i v ,	MLRA 13		53 (1 12) (LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MI DA 13	6 122\		³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo				10\	wetland hydrology must be present,
	d Matrix (S6)		Red Parent N					
	Layer (if observed):		Red Falentin	nateriai (F	ZI) (WILK	A 121, 141	')	unless disturbed or problematic.
	Layer (ii observed).							
Type:			_					
Depth (ir	nches):		_				Hydric	Soil Present? Yes No
Remarks:								
lo hydric soi	I present							



Photo 1
Upland data point WAUC113_u facing south



Photo 2
Upland data point WAUC113_u facing east

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Augusta County		Sampling Date: 3/11/2016
Applicant/Owner: DOMINION				State: VA	Sampling Point: wauc115e_w
			on, Township, Range: No		
Landform (hillslope, terrace, etc.): Floodpla					
Subregion (LRR or MLRA): S					
Soil Map Unit Name: Chavies fine sandy lo	am			NWI classific	cation: None
Are climatic / hydrologic conditions on the s	ite typical for the	his time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hyd	Irology	significantly disturb	ped? Are "Norma	I Circumstances" p	present? Yes No
Are Vegetation, Soil, or Hyd					
SUMMARY OF FINDINGS – Atta					
Hydrophytic Vocatation Propert?	Voc. V	No			-
	Yes /		Is the Sampled Area		
	Yes 🔽		within a Wetland?	Yes	No
Remarks:					
HYDROLOGY				0	tone (all all and all all all and all all all all all all all all all al
Wetland Hydrology Indicators:					ators (minimum of two required)
Primary Indicators (minimum of one is req			~	Surface Soil	
Surface Water (A1)		ue Aquatic Plants (I			getated Concave Surface (B8)
✓ High Water Table (A2)✓ Saturation (A3)		drogen Sulfide Odd	es on Living Roots (C3)	Drainage Pa Moss Trim L	
Water Marks (B1)		esence of Reduced	=		Water Table (C2)
Sediment Deposits (B2)	_		n in Tilled Soils (C6)	Crayfish Bur	
Drift Deposits (B3)		nin Muck Surface (C		· ·	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		her (Explain in Ren			tressed Plants (D1)
Iron Deposits (B5)			•	✓ Geomorphic	
Inundation Visible on Aerial Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (B9)				Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:					
		epth (inches):			
		eptn (inches):	6		
Saturation Present? Yes (includes capillary fringe)	_ No D	epth (inches):	Wetland I	Hydrology Preser	nt? Yes V No
Describe Recorded Data (stream gauge, i	monitoring well	l, aerial photos, pre	vious inspections), if ava	ailable:	
Remarks:					
Wetland hydrology indicators present					

Total Cover: Total Cover: Yes No No No	er 0 FAC FACW FAC FACU	Number of Dominant Species That Are OBL, FACW, or FAC:
Total Covering of the covering	0 FAC FACW FAC FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by:
Total Covering of the covering	0 FAC FACW FAC FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by:
Total Covering Total Covering Yes No No	0 FAC FACW FAC FACU	Prevalence Index worksheet:
Total Covering Total	0 FAC FACW FAC FACU	Total % Cover of: OBL species 0 x 1 = 0 FACW species 15 x 2 = 30 FAC species 75 x 3 = 225 FACU species 20 x 4 = 80 UPL species 0 Column Totals: 110 (A) Multiply by: x 2 = 30 RACW species 75 x 3 = 225 RACW species 0 x 5 = 0 Column Totals: 110 (A) Multiply by: x 2 = 30 RACW species 10 x 4 = 80 RACW species 10 x 5 = 0 RACW species 110 (A) Multiply by: 80 80 80 80 Which is a second se
Total Cover: Yes No No	0 FAC FACW FAC FACU	OBL species 0 x 1 = 0 FACW species 75 x 2 = 30 FAC species 75 x 3 = 225 FACU species 20 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 110 (A) 335 (B) Prevalence Index = B/A = 3.04 Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Coverotal cover: Yes No No	FAC FACW FAC FACU	FACW species 15 x 2 = 30 FAC species 75 x 3 = 225 FACU species 0 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 110 (A) 335 (B) Prevalence Index = B/A = 3.04 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Coverotal cover: Yes No No	FAC FACW FAC FACU	FACW species
Total Coverotal cover: Yes No No	FAC FACW FAC FACU	FACU species 20 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 110 (A) 335 (B) Prevalence Index = B/A = 3.04 Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cove otal cover: Yes No No	FAC FACW FAC FACU	UPL species 0 x 5 = 0 Column Totals: 110 (A) 335 (B) Prevalence Index = B/A = 3.04 Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cove otal cover: Yes No No	FAC FACW FAC FACU	Column Totals: 110
Total Cove otal cover: Yes No No	FAC FACW FAC FACU	Prevalence Index = B/A = 3.04 Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cove otal cover: Yes No No	FAC FACW FAC FACU	Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cove otal cover: Yes No No	FAC FACW FAC FACU	Hydrophytic Vegetation Indicators: 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cover: Otal cover: Yes No No	FAC FACU	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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cover: Yes No No	FAC FACU	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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Cover: Yes No No	FAC FACU	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No No No	FAC FACU	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No No No	FAC FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Yes No No No	FACW FAC FACU	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
No No No	FACW FAC FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
No No	FAC FACU	be present, unless disturbed or problematic.
No	FACU	be present, unless disturbed or problematic.
No		Definitions of Four Vegetation Strata:
	FACU	T .
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of
		more in diameter at breast height (DBH), regardless of
		height.
		Sapling/Shrub – Woody plants, excluding vines, less
		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
•		iii) taii.
		Herb – All herbaceous (non-woody) plants, regardless
		of size, and woody plants less than 3.28 ft tall.
otal cover.		Woody vine – All woody vines greater than 3.28 ft in
		height.
•		
		Hydrophytic
		Vegetation Present? Yes No
	_	riesent: resno
otal cover:		
	otal cover:_	Total Cover

	(2000		pth needed to docum				the absenc	e of indicators.)
Depth	Matrix		Redo	x Features		. 2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist) 10 YR 4/6	<u>%</u>	Type ¹	Loc ²	<u>Texture</u> SL	Remarks
0-8	2.5 Y 4/2	95	10 1R 4/0	5	C	PL/M		
8-18	2.5 Y 5/2	98	10 YR 4/6	2	С	PL	SL	
							-	
		· 			-	· ——		_
						· ——		_
	-							
								_
								<u> </u>
		letion, RN	1=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indi	cators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					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)		<u>✓</u> Depleted Ma		·c)			(MLRA 136, 147)
	uck (A10) (LRR N) d Below Dark Surface	Δ(Δ11)	Redox Dark S Depleted Dar		,			Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ark Surface (A12)	C (A11)	Redox Depre				_	Other (Explain in Remarks)
	Mucky Mineral (S1) (L	RR N.	Iron-Mangan			LRR N,		
	A 147, 148)	,	MLRA 13		() (,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	³ lr	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) v	vetland hydrology must be present,
	d Matrix (S6)		Red Parent N	/laterial (F	21) (MLR	A 127, 147	') u	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Typo			<u></u>					
Type:							Hydric So	il Present? Yes No
Depth (in	iches):						riyuric 30	
Depth (in	ches):						Hyunc 30	
Depth (in Remarks:	dicators present						Hydric 30	
Depth (in Remarks:							Hydric 30	
Depth (in Remarks:							riyuric 30	
Depth (in Remarks:							nyunc 30	
Depth (in Remarks:							nyunc 30	
Depth (in Remarks:							nyunc 30	
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Depth (in Remarks:							nyunc 30	
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Depth (in Remarks:							nyunc 30	
Depth (in Remarks:							nyunc 30	
Depth (in Remarks:							nyunc 30	



Photo 1
Wetland data point WAUC115e_w facing northeast



Photo 2
Wetland data point WAUC115e_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/C	City/County: Augusta County Sampling Date: 3/11/2016						
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc115_u						
	Section	Section, Township, Range: No PLSS in this area						
		Local relief (concave, convex, none): none Slope (%):2						
Soil Map Unit Name: Chavies fine sandy loa	am	Lat: 38.2043072 Long: -79.37493526 Datum: WGS 1984 NWI classification:						
Are climatic / hydrologic conditions on the sit								
Are Vegetation, Soil, or Hydr								
Are Vegetation, Soil, or Hydr								
SUMMARY OF FINDINGS – Attac								
	· · · · · · · · · · · · · · · · · · ·							
	/es No	Is the Sampled Area within a Wetland? Yes No						
	/es No							
Wetland Hydrology Present? Y Remarks:	/es No ✓							
LIVEROL GOV								
HYDROLOGY		Capandan	Indicators (minimum of two required)					
Wetland Hydrology Indicators:	uirad: abaak all that apply)		Indicators (minimum of two required)					
Primary Indicators (minimum of one is requ			e Soil Cracks (B6) ely Vegetated Concave Surface (B8)					
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (Hydrogen Sulfide Od		ige Patterns (B10)					
Saturation (A3)	Oxidized Rhizospher		Trim Lines (B16)					
Water Marks (B1)	Presence of Reduced		eason Water Table (C2)					
Sediment Deposits (B2)	Recent Iron Reduction		sh Burrows (C8)					
Drift Deposits (B3)	Thin Muck Surface (0	Satura	ition Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Other (Explain in Rer	marks) Stunte	d or Stressed Plants (D1)					
Iron Deposits (B5)			orphic Position (D2)					
Inundation Visible on Aerial Imagery (E	37)		w Aquitard (D3)					
Water-Stained Leaves (B9)			 Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Aquatic Fauna (B13)		FAC-N	leutral Test (D5)					
Field Observations:	No. V Donth (inches)							
	No Depth (inches): Depth (inches):							
	No Depth (inches):		Wetland Hydrology Present? Yes No					
(includes capillary fringe)								
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pre	evious inspections), if available:						
Remarks:								
No wetland hydrology indicators present								

Sampling	Point: wauc115_u
Sambling	Point: wador 10_c

00	Absolute	Dominant Ir		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species That Are ORL FACW or FAC: 2 (A)
1				That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 66.6666666 (A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
E0% of total cover:		= Total Cover total cover:	0	OBL species 0 x 1 =0
50% of total cover: U Sapling/Shrub Stratum (Plot size: 15)	20% 01	total cover		FACW species 0 x 2 = 0
,				FAC species 55 x 3 = 165
1		-		FACU species 75 x 4 = 300
2				UPL species
3				Column Totals: 130 (A) 465 (B)
4				,,,,
5				Prevalence Index = B/A =3.57
6		-		Hydrophytic Vegetation Indicators:
7		-		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	0	Total Cayar		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 0		= Total Cover total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:5)	2070 01	total cover		data in Remarks or on a separate sheet)
1. Poa pratensis	30	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Panicum virgatum	30	Yes	FAC	
3. Setaria parviflora	25	Yes	FAC	¹Indicators of hydric soil and wetland hydrology must
4. Andropogon virginicus	20	No	FACU	be present, unless disturbed or problematic.
5. Trifolium pratense	15	No	FACU	Definitions of Four Vegetation Strata:
6. Achillea millefolium	10	No	FACU	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.				Harb All barbassas (non woods) plants regardless
	130	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 65		total cover:		W 1 1 All 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Woody Vine Stratum (Plot size: 30				Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2				
3				
4				Lludrombustic
5				Hydrophytic 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 si	heet.)			

Sampling Point: wauc115_u

Depth Matrix Redox Features
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand, Reduced Rate Sand, Reduced Rat
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Histosol (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A11) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Mura 147, 148) Mura 147, 148) Mura 147, 148) Mura 147, 148) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Redox Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) Mura 136, 147) Other (Explain in Remarks) Jandy Redox (S5) Piedmont Floodplain Soils (F19) Mura 136, 147) Jordicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No
Hydric Soil Indicators: Histosol (A1)
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Muck (A10) (LRR N) Pepleted Below Dark Surface (A11) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Nerror Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Inch Manganese Masses (F12) (LRR N, MLRA 136) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Iron-Manganese Masses (F12) (MLRA 136, 122) Iron-Manganese Masses (F12
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Muck (A10) (LRR N) Pepleted Below Dark Surface (A11) Depleted Dark Surface (F6) 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) Redox Depressions (F12) (LRR N, MLRA 127, 147) MLRA 127, 147) Piedmont Floodplain Soils (F19) (MLRA 127, 147) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Nother (Explain
Stratified Layers (A5)
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 (F12) (LRR N, Dark Surface (F12) (
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Restrictive Layer (if observed): Type: Depth (inches): Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Iron-Manganese Masses (F12) (LRR N, MLRA 136) White Matrix (S4) Surface (F13) (MLRA 136, 122) Iron-Manganese Masses (F12) (MLRA 136, 122) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 127, 147) White Matrix (S6) Wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No Fremarks:
Sandy Mucky Mineral (S1) (LRR N,
MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Strippe: Depth (inches): Semarks: MLRA 136) Umbric Surface (F13) (MLRA 136, 122) MLRA 148) Wetland hydrology must be present, wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No ✓ Remarks:
Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes No
Type: Depth (inches):
Depth (inches): No Remarks:
Depth (inches): No Remarks:
Remarks:
No hydric soil present
l.



Photo 1
Upland data point WAUC115_u facing northeast



Photo 2
Upland data point WAUC115_u facing southwest

Project/Site: Atlantic Coast Pipe	line	City/County: Augusta County Sampling Date: 3/11/2016						
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc114e_v						
		Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.)								
		Lat: 38.20561965 Long: -79.37506429 Datum: WGS 1984						
Soil Map Unit Name: Philo silt lo	am	NWI classification: None						
Are climatic / hydrologic condition	ns on the site typi							
Are Vegetation , Soil	, or Hydrology	significantly distur	bed? Are "Norma	l Circumstances"	present? Yes No			
Are Vegetation, Soil								
					s, important features, etc.			
Hydrophytic Vegetation Presen	t? Voc	✓ No						
Hydric Soil Present?	Yes	No	Is the Sampled Area within a Wetland? Yes No					
Wetland Hydrology Present?		V No	within a Wetland?	Yes	No			
Remarks:								
LIVEROL OCY								
HYDROLOGY				0	-1(
Wetland Hydrology Indicator				•	ators (minimum of two required)			
Primary Indicators (minimum of	one is required; on		(5.1.1)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
Surface Water (A1)		True Aquatic Plants (
High Water Table (A2)		Hydrogen Sulfide OdOxidized Rhizospher		✓ Drainage Pa				
Saturation (A3)		Presence of Reduced	= : : :	Moss Trim L	Water Table (C2)			
Water Marks (B1) Sediment Deposits (B2)		Recent Iron Reduction	` '	Crayfish Bu				
Drift Deposits (B3)		Thin Muck Surface (0		-	/isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer			Stressed Plants (D1)			
Iron Deposits (B5)			,	✓ Geomorphic				
Inundation Visible on Aeria	ıl Imagery (B7)							
Water-Stained Leaves (B9				Shallow Aquitard (D3) Microtopographic Relief (D4)				
Aquatic Fauna (B13)				✓ FAC-Neutra				
Field Observations:								
Surface Water Present?		Depth (inches):						
Water Table Present?	Yes _ V No _	Depth (inches):	0	Wetland Hydrology Present? Yes No				
Saturation Present?		Depth (inches):	0 Wetland I					
(includes capillary fringe) Describe Recorded Data (strea	ım galige monitoi	ing well perial photos pre	wious inspections) if ava	nilahla:				
Describe Necorded Data (strea	in gauge, monitor	ing well, aerial priotos, pre	rious inspections), ii ava	illable.				
Remarks:								
Wetland hydrology indicators pr	esent							

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: wauc114e_w
•	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Persont of Deminant Chasics
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species 20 x 1 = 20 170
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
1. Betula nigra	5	Yes	FACW	FAC species 0 x 3 = 0
2				FACU species x 4 = 40
3				UPL species x 5 =
4				Column Totals:115
5				Drawelence Indian D/A
6				Prevalence Index = B/A =2
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9.				2 - Dominance Test is >50%
J	5	= Total Cove		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 2.5		total cover:	1	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5)	2070 01	101ai 0070i.		data in Remarks or on a separate sheet)
1 Scirpus cyperinus	50	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juncus effusus	30	Yes	FACW	
3. Carex lupulina	20	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Andropogon virginicus	10	No	FACU	be present, unless disturbed or problematic.
<u> </u>				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
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tan.
11	110			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 55		= Total Cover:		of size, and woody plants less than 3.28 ft tall.
20	20% 01	total cover:		Woody vine – All woody vines greater than 3.28 ft in
(1 lot size)				height.
1				
2				
3	<u> </u>			
4				Hydrophytic
5				Vegetation Present? Yes No
0		= Total Cove	^	Present? Yes No
50% of total cover:0		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

		to the de	pth needed to docun			or confirm	the absenc	e of indicators.)
Depth	Matrix Color (moiot)	%	Color (moist)	x Feature	S Type ¹	Loc ²	Toyturo	Domarka
(inches) 0-8	Color (moist) 10YR 5/2	97	10 YR 3/6	3	C	PL	<u>Texture</u> SL	Remarks
	· 							_
8-18	2.5 Y 5/1	100					CL	
								-
	.	·			-			. .
	<u> </u>							
	•							
	.	·			-			. .
						· ——		
T		ladaa DN	A. Dankara d Marketa MC		1010-		21 1' 1	Di Bara Lisian M Mark
	Concentration, D=Dep	letion, RIV	1=Reduced Matrix, MS	s=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
•			D	(07)				· · · · · · · · · · · · · · · · · · ·
Histoso			Dark Surface		(00) (1	N D A 447		2 cm Muck (A10) (MLRA 147)
	Epipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(Г∠)		_	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		<u>✓</u> Depleted Mat		-c)			(MLRA 136, 147)
	luck (A10) (LRR N) ed Below Dark Surfac	o (A11)	Redox Dark S		,			Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	oark Surface (A12)	e (ATT)	Depleted Dar Redox Depre					Other (Explain in Remarks)
	Mucky Mineral (S1) (L	DD N	Iron-Mangan			I DD N		
	A 147, 148)	-NN N,	MLRA 13		es (F12) (LINK IN,		
	Gleyed Matrix (S4)		Umbric Surfa	-	(MI D A 13	RE 122\	³ In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed):		Red r arent n	nateriai (i	Z1) (WILK	A 121, 141	, u	mess disturbed of problematic.
	Layer (ii observed).							
Type:								
Depth (ir	nches):						Hydric So	il Present? Yes No
Remarks:								
lydric soil in	dicators present							



Photo 1
Wetland data point WAUC114e_w facing northeast



Photo 2
Wetland data point WAUC114e_w facing northwest

Project/Site: Atlantic Coast Pipeline	City/Cou	City/County: Augusta County Sampling Date: 3/11/2016						
Applicant/Owner: DOMINION		State: VA Sampling Point: wauc114_u						
	Section, Township, Range: No PLSS in this area							
		Local relief (concave, convex, none): none Slope (%): 2						
Soil Map Unit Name: Chavies fine sandy loam	Lat: 38.2054916 Long: -79.37495249 Datum: WGS 1984 NWI classification:							
Are climatic / hydrologic conditions on the site ty								
Are Vegetation, Soil, or Hydrolog								
Are Vegetation, Soil, or Hydrolog								
SUMMARY OF FINDINGS – Attach								
		mg pomi rodanome, man						
	No	Is the Sampled Area within a Wetland? Yes No						
	No	No within a Wetland? Yes No						
Wetland Hydrology Present? Yes Remarks:	No							
HYDROLOGY								
Wetland Hydrology Indicators:			y Indicators (minimum of two required)					
Primary Indicators (minimum of one is required			ce Soil Cracks (B6)					
Surface Water (A1)	True Aquatic Plants (B1		sely Vegetated Concave Surface (B8)					
High Water Table (A2) Saturation (A3)	Hydrogen Sulfide OdorOxidized Rhizospheres		age Patterns (B10) Trim Lines (B16)					
Water Marks (B1)	Presence of Reduced I		Season Water Table (C2)					
Sediment Deposits (B2)	Recent Iron Reduction		ish Burrows (C8)					
Drift Deposits (B3)	Thin Muck Surface (C7)		ation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Other (Explain in Rema		ed or Stressed Plants (D1)					
Iron Deposits (B5)		Geom	norphic Position (D2)					
Inundation Visible on Aerial Imagery (B7)		Shalle	ow Aquitard (D3)					
Water-Stained Leaves (B9)			Microtopographic Relief (D4)					
Aquatic Fauna (B13)		FAC-	Neutral Test (D5)					
Field Observations:								
	Depth (inches):		Wetland Hydrology Present? Yes No					
	Depth (inches):							
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology						
Describe Recorded Data (stream gauge, moni	oring well, aerial photos, previo	ous inspections), if available:						
Remarks: No wetland hydrology indicators present								
No wettand flydrology indicators present								

'EGETATION (Four Strata) – Use scientific na	ames of	piants.		Sampling Point: wader 14_u	
Tree Stratum (Plot size: 30)	Absolute	Dominant In		Dominance Test worksheet:	
<u> </u>	% Cover	Species?	<u>Status</u>	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: (A))
2				Total Number of Dominant	
3				Species Across All Strata: 3 (B))
4				Percent of Dominant Species	
5					/B)
6				, , , ,	,
7				Prevalence Index worksheet:	
	0	= Total Cover		Total % Cover of: Multiply by:	
50% of total cover: 0			0	OBL species 0 x 1 = 0	
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0	
1				FAC species55	
2				FACU species75	
ā				UPL species0 x 5 =0	
3				130 465	B)
4				(1)	_,
5				Prevalence Index = B/A = 3.57	
6				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
8				2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
	0	= Total Cover		4 - Morphological Adaptations¹ (Provide support	tina
50% of total cover:0	20% of	total cover:	0		iiig
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)	
1. Panicum virgatum	30	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Poa pratensis	30	Yes	FACU		
3. Setaria parviflora	25	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must	t
4. Andropogon virginicus	20	No	FACU	be present, unless disturbed or problematic.	
5. Trifolium pratense	15	No	FACU	Definitions of Four Vegetation Strata:	
6. Achillea millefolium	10	No No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)	or
			1700	more in diameter at breast height (DBH), regardless	of
7				height.	
8				Sapling/Shrub – Woody plants, excluding vines, les	SS
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, regardle	ss
	130	= Total Cover		of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 65	20% of	total cover:	26	Woody vine – All woody vines greater than 3.28 ft in	n
Woody Vine Stratum (Plot size:)				height.	'
1					
2.					
3					
4.					
5.				Hydrophytic Vegetation	
<u>. </u>	0	= Total Cover		Present? Yes No	
50% of total cover:		total cover:	0		
Remarks: (Include photo numbers here or on a separate si		total cover	_		
Remarks. (include photo numbers here of on a separate si	ieet.)				

Profile Desc	ription: (Describe to	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	ce of indicators.)
Depth	Matrix		Redo	x Features	3			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 4/4	100					SL	
								- -
					-			
								_
					-			<u> </u>
					-			
					-			
	oncentration, D=Deple	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indi	icators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
Black Hi			Thin Dark Su	. ,	•	47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	ick (A10) (LRR N)	(111)	Redox Dark S	•	,			Very Shallow Dark Surface (TF12)
	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Dar Redox Depre					Other (Explain in Remarks)
	fucky Mineral (S1) (L l	RR N	Iron-Mangan			RRN		
	147, 148)	ixix i v ,	MLRA 13		55 (1 12) (LIXIX IN,		
	Gleyed Matrix (S4)		Umbric Surfa		MIRA 13	6. 122)	³ lı	ndicators of hydrophytic vegetation and
	ledox (S5)		Piedmont Flo					wetland hydrology must be present,
	Matrix (S6)		Red Parent N					unless disturbed or problematic.
	_ayer (if observed):				, (,	,	, , , , , , , , , , , , , , , , , , ,
Type:	, ,							
	ches):		_				Hydric Sc	oil Present? Yes No 🗸
Remarks:							Tiyano oc	711 1030Ht. 103 NO
No hydric soil	procent							
No flydric Soil	present							



Photo 1
Upland data point wauc114_u facing southwest



Photo 2
Upland data point wauc114_u facing southeast

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 7/18/2016						
Applicant/Owner: Dominion		State: VA Sampling Point: Wauy0066						
Investigator(s): KO, SA		Section, Township, Range: No PLSS in this area						
• ,,		Local relief (concave, convex, none): concave Slope (%): 2						
		Lat: 38.21058273 Long: -79.37281682 Datum: WGS 198						
Soil Map Unit Name: Philo silt loam		NWI classification: PEM						
		-1 (a) (a) (a) (a) (a)						
Are climatic / hydrologic conditions of								
Are Vegetation, Soil,								
Are Vegetation, Soil,				explain any answe				
SUMMARY OF FINDINGS -	- Attach site	map showing san	npling point location	ons, transects	s, important features, etc.			
Hydrophytic Vegetation Present?	Yes •	/ No	Is the Sampled Area					
Hydric Soil Present?		/No	within a Wetland?	Vos V	No			
Wetland Hydrology Present?	Yes	/ No	within a Wetland:	103				
Remarks:								
Wetland data point taken in riparian	floodplain.							
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of on				Surface Soil Cracks (B6)				
✓ Surface Water (A1)		True Aquatic Plants (
High Water Table (A2)		Hydrogen Sulfide Od		✓ Drainage Patterns (B10)				
Saturation (A3)	_	Oxidized Rhizospher	• , ,	Moss Trim L				
Water Marks (B1)		Presence of Reduce			Water Table (C2)			
Sediment Deposits (B2)	-	Recent Iron Reduction		Crayfish Bur				
Drift Deposits (B3)	-	Thin Muck Surface (0			isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	-	Other (Explain in Rei	marks)		stressed Plants (D1)			
Iron Deposits (B5)	(5-1)				Position (D2)			
Inundation Visible on Aerial Im	agery (B7)			Shallow Aqu				
Water-Stained Leaves (B9)			Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)					
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations: Surface Water Present? Yes	. V No	Donth (inches)	4					
		Depth (inches):	0					
		Depth (inches):	0	Wetland Hydrology Present? Yes No				
Saturation Present? Yes (includes capillary fringe)	s No	Depth (inches):	Wetland F	Hydrology Preser	nt? Yes V No			
Describe Recorded Data (stream g	auge, monitorir	ng well, aerial photos, pre	evious inspections), if ava	ilable:				
December								
Remarks:								

Sampling Point: Wauy006e_v	oint·Wauy006e_w	Sampling
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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?		Number of Dominant Species
1. none	0			That Are OBL, FACW, or FAC:3 (A)
2.				()
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0		total cover:	0	OBL species80 x 1 =80
Sapling/Shrub Stratum (Plot size: 0)				FACW species 20 x 2 = 40
1. none	0			FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
2				
3				UPL species
4				Column Totals: (A) (B)
5				5 1 1 2
				Prevalence Index = B/A =1.2
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	r	
50% of total cover:0	20% of	total cover:_	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 0)				data in Remarks or on a separate sheet)
1 Leersia oryzoides	40	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juncus effusus	20	Yes	FACW	
3. Scirpus atrovirens	20	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must
∆ Carex vulpinoidea	10	No	OBL	be present, unless disturbed or problematic.
5. Mimulus ringens	5	No	OBL	Definitions of Four Vegetation Strata:
6. Galium asprellum		No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
			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
	100	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50		total cover:_		
Woody Vine Stratum (Plot size: 0)		_		Woody vine – All woody vines greater than 3.28 ft in
1 none	0			height.
· ·				
2				
3				
4				Hydrophytic
5.				Vegetation
	0 .	= Total Cove		Present? Yes No
50% of total cover: 0		total cover:_	_	
Remarks: (Include photo numbers here or on a separate si				
Tremains. (include prote numbers here of on a separate si	noct.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	10YR 5/2	100					SIL	
2-12	2.5Y 6/2	80	10YR 4/6	20	С	PL/M	SIC	refusal due to rock
								
	-							-
		·						
	-							
	-							
¹ Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	low Surface	e (S8) (N	ILRA 147,	148)	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					(MLRA 136, 147)
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F6	5)		\	/ery Shallow Dark Surface (TF12)
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	k Surface (F7)		0	Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8))			
Sandy N	lucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Masses	s (F12) (LRR N,		
MLRA	A 147, 148)		MLRA 130	6)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (N	ILRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soi	ils (F19)	(MLRA 14	8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	1aterial (F2	1) (MLR	A 127, 147	') un	lless disturbed or problematic.
	Layer (if observed):							
Type: roo	ck 							
Depth (in	ches): <u>12</u>						Hydric Soil	Present? Yes V No V
Remarks:	<u> </u>						1 -	



Wetland data point wauy006e_w facing south



Wetland data point wauy006e_w facing north

Project/Site: Atlantic Coast Pipeline		City/County	Augusta County		Sampling Date: 7/18/2016
Applicant/Owner: Dominion				State: VA	Sampling Point: Wauy006_u
Landform (hillslope, terrace, etc.): floodplain					
Subregion (LRR or MLRA): S	Lat: 38.21061	504	Long: -79.	37274413	Datum: WGS 1984
Soil Map Unit Name: Philo silt loam				NWI classifi	cation: UPLAND
Are climatic / hydrologic conditions on the site	typical for this time				
Are Vegetation, Soil, or Hydro					
Are Vegetation, Soil, or Hydro					
SUMMARY OF FINDINGS – Attach					
Attao	- Site map sno		g point location	, transcott	5, important routures, etc.
	es No	Is th	e Sampled Area		
	es No	with	in a Wetland?	Yes	No
Wetland Hydrology Present? Ye Remarks:	es No				
Upland data point taken in floodplain.					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is require	ed; check all that a	pply)		Surface Soil	Cracks (B6)
Surface Water (A1)	True Aqu	atic Plants (B14)		Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2)		Sulfide Odor (C1		_	atterns (B10)
Saturation (A3)			Living Roots (C3)	Moss Trim L	
Water Marks (B1)		of Reduced Iron			Water Table (C2)
Sediment Deposits (B2)		on Reduction in T	lled Soils (C6)	Crayfish Bu	
Drift Deposits (B3)		k Surface (C7)			/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Ex	plain in Remarks)			Stressed Plants (D1) c Position (D2)
Inundation Visible on Aerial Imagery (B7	7)			Shallow Aqu	
Water-Stained Leaves (B9)	,				raphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutra	
Field Observations:					
Surface Water Present? Yes I	No Depth (ii	nches):			
Water Table Present? Yes I	No Depth (ii	nches):			
	No Depth (ii	nches):	Wetland I	Hydrology Prese	nt? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well, aerial	photos, previous	l inspections), if ava	nilable:	
Remarks:					

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

Sampling Point: Wauy006_u

0	Absolute	Dominant In		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)			Status	Number of Dominant Species
1. Prunus serotina	10	Yes	FACU	That Are OBL, FACW, or FAC:1 (A)
2. Juglans nigra	10	Yes	FACU	T. 111 1 15 15 15
3				Total Number of Dominant Species Across All Strata: 4 (B)
4.		·		Opedies Across Air otrata.
· ·				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 25 (A/B)
6				Prevalence Index worksheet:
7		. <u></u> .		
	20	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 10	20% of	total cover:	4	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 0				FACW species 30
1 Rubus allegheniensis	50	Yes	FACU	FAC species0 x 3 =0
-				FACU species
				UPL species
3				100 340
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =3.4
6				1 Tevalence mack = B/T(=
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
^		-		2 - Dominance Test is >50%
9	50	T-1-1-0		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 25		= Total Cover	10	4 - Morphological Adaptations ¹ (Provide supporting
0	20% of	total cover:		data in Remarks or on a separate sheet)
TIEID Stratum (FIOL SIZE)	00			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Impatiens capensis	30	Yes	FACW	
2		. <u></u> .		The directors of burdels and models and burden laws as not
3				¹ 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 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
	30	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 15	20% of	total cover:	6	Was divides. All was divided as assets the 2.20 ft in
Woody Vine Stratum (Plot size: 0)				Woody vine – All woody vines greater than 3.28 ft in height.
1. none	0			noight.
2.				
3				
4				Hydrophytic
5				Vegetation
		= 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	heet.)			

Depth	<u>Matrix</u>		Redox Features	<u> </u>	- :	
nches)	Color (moist)	<u>%</u>	Color (moist) %	Type ¹ Loc ²	<u>Texture</u>	Remarks
0-8	10YR 4/4	100			SICL	refusal due to rock
		· ——— —				
		- <u></u>				
						
		· ———				-
		- <u></u>				
	-	· ——— —				-
		letion, RM=Re	educed Matrix, MS=Masked S	and Grains.		L=Pore Lining, M=Matrix.
dric Soil	Indicators:				Indica	ators for Problematic Hydric Soils ³ :
_ Histosol	(A1)		Dark Surface (S7)		2	cm Muck (A10) (MLRA 147)
_ Histic E	oipedon (A2)		Polyvalue Below Surface	(S8) (MLRA 147,	148) C	Coast Prairie Redox (A16)
Black Hi	istic (A3)		Thin Dark Surface (S9) (N	/ILRA 147, 148)		(MLRA 147, 148)
_ Hydroge	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	P	riedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark Surface (F6)		V	ery Shallow Dark Surface (TF12)
Deplete	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F	7)	c	Other (Explain in Remarks)
_ Thick Da	ark Surface (A12)		Redox Depressions (F8)			
	Mucky Mineral (S1) (L	_RR N,	Iron-Manganese Masses	(F12) (LRR N,		
	A 147, 148)	•	MLRA 136)	. , .		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MI	-RA 136. 122)	³ Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils			etland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21			less disturbed or problematic.
	Layer (if observed):			, (,	, <u>"</u> I	- Programme
Type: roo						
			_			
Depth (in	ches): <u></u>		_		Hydric Soil	Present? Yes No
emarks:						



Upland data point wauy006_u facing southeast



Upland data point wauy006_u facing north

Project/Site: Atlantic Coast Pipe	eline	City/C	County: Augusta County		Sampling Date: 7/18/2016		
Applicant/Owner: Dominion				State: VA	Sampling Point: Wauy005e_w		
		Section	on, Township, Range: No	PLSS in this area	<u> </u>		
Landform (hillslope, terrace, etc							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Buchanan	fine sandy loam,	0 to 2 percent slopes		NWI classific	eation: PEM		
Are climatic / hydrologic condition	ons on the site typ	ical for 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 No		
Are Vegetation, Soil							
					, important features, etc.		
Hydrophytic Vegetation Prese	phytic Vegetation Present? Yes V No Is the Sempled Area						
Hydric Soil Present?		✓ No	Is the Sampled Area within a Wetland?	Yes V	No		
Wetland Hydrology Present?	Yes _	✓ No	within a Wetland:	103			
HYDROLOGY							
Wetland Hydrology Indicato				<u> </u>	ators (minimum of two required)		
Primary Indicators (minimum o	of one is required;		(T)	Surface Soil			
Surface Water (A1)		True Aquatic Plants (getated Concave Surface (B8)		
✓ High Water Table (A2)✓ Saturation (A3)		Hydrogen Sulfide OdOxidized Rhizospher		Drainage Pa			
Water Marks (B1)		Presence of Reduced		Moss Trim L	Water Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduction	` '	Crayfish Bur			
Drift Deposits (B3)		Thin Muck Surface (0		-	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer			tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic	Position (D2)		
Inundation Visible on Aeri	al Imagery (B7)			Shallow Aqu	itard (D3)		
Water-Stained Leaves (BS	9)				aphic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations:		5 (1 . 1 . 1	1				
Surface Water Present?		Depth (inches):	0				
Water Table Present?		Depth (inches):	0	l l	V N-		
Saturation Present? (includes capillary fringe)	Yes _ NO _	Depth (inches):	wetland F	lydrology Preser	nt? Yes No		
Describe Recorded Data (stre	am gauge, monito	ring well, aerial photos, pre	evious inspections), if ava	ilable:			
Pomorko:							
Remarks:							

Sampling	Point: Wauy005e_	W
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	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?		Number of Dominant Species
1. none	0			That Are OBL, FACW, or FAC:3 (A)
2.				(/,
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
7				Prevalence Index worksheet:
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0		total cover:	0	OBL species105 x 1 =105
Sapling/Shrub Stratum (Plot size: 0)				FACW species10 x 2 =20
1 Rosa palustris	15	Yes	OBL	FAC species 0 x 3 = 0
·· ·				FACU species 0 x 4 = 0
2				
3				UPL species
4				Column Totals: (A) (B)
5				1.00
6				Prevalence Index = B/A =1.08
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	15	= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 7.5	20% of	total cover:_	3	
Herb Stratum (Plot size: 0)				data in Remarks or on a separate sheet)
1 Typha X glauca	35	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Glyceria striata	30	Yes	OBL	
3. Leersia oryzoides	15	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
	10			be present, unless disturbed or problematic.
4. Impatiens capensis		No	FACW	Definitions of Four Vegetation Strata:
5. Persicaria sagittata	10	No	OBL	- W
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tall.
11	400			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		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. none	0			_
2.				
3.				
4				
4				Hydrophytic
5				Vegetation Present? Yes No
		= 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	heet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	10YR 5/1	80	10YR 5/8	20	C	PL/M	SIC	
12-18	10YR 6/1	80	10YR 5/8	20	С	M	SIC	
								-
_								
Turno: C-C	oncontration D-Dan	lotion DM	=Reduced Matrix, MS	2-Maakad	Sand Cr	nino	² Location: D	L=Pore Lining, M=Matrix.
	Indicators:	ietion, Rivi	=Reduced Matrix, Mis	S=IVIASKEU	Sand Gr	ams.		ators for Problematic Hydric Soils ³ :
Histosol			Dork Surface	(07)				
	oipedon (A2)		Dark Surface Polyvalue Be		ر (S2) را	NI DA 147		cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
	istic (A3)		Polyvalue Be				140) ((MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	, ,	•	147, 140)	Б	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		۷)			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		3)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	ark Surface (A12)	. (,)	Redox Depre		. ,		`	Tarior (27p.am m riomanio)
	/ucky Mineral (S1) (L	.RR N.	Iron-Mangan			LRR N.		
	A 147, 148)	,	MLRA 13		- () (,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6. 122)	³ 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):		_			<u> </u>	Í	· · · · · · · · · · · · · · · · · · ·
Type:	,							
	ches):						Hydric Soil	Present? Yes No
Remarks:	<u> </u>						,	<u></u>
Veillaiks.								



Wetland data point wauy005e_w facing west



Wetland data point wauy005e_w facing south

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta County		Sampling Date: 7/18/2016
Applicant/Owner: Dominion				State: VA	Sampling Point: Wauy005_u
		Section	on, Township, Range: No	PLSS in this area	
Landform (hillslope, terrace, etc.): Valley					
Subregion (LRR or MLRA): S	Lat. 3	8.21229657	Long79.3	37206578	Datum: WGS 1984
Soil Map Unit Name: Buchanan fine sandy	loam, 0 to 2 p	ercent slopes	20119	NWI classific	ation: UPLAND
Are climatic / hydrologic conditions on the s					
Are Vegetation, Soil, or Hyd					
Are Vegetation, Soil, or Hyd					
SUMMARY OF FINDINGS – Atta					
					, ,
	Yes Yes		Is the Sampled Area		
	Yes		within a Wetland?	Yes	No
Remarks:		110			
HYDROLOGY					
Wetland Hydrology Indicators:					tors (minimum of two required)
Primary Indicators (minimum of one is req				Surface Soil (
Surface Water (A1)		rue Aquatic Plants (etated Concave Surface (B8)
High Water Table (A2)		ydrogen Sulfide Od		Drainage Pat	
Saturation (A3)		resence of Reduced	• , ,	Moss Trim Li	
Water Marks (B1) Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burr	Nater Table (C2)
Drift Deposits (B3)		nin Muck Surface (0			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		ther (Explain in Rer			ressed Plants (D1)
Iron Deposits (B5)	_ `	(=	,	Geomorphic	, ,
Inundation Visible on Aerial Imagery (B7)			Shallow Aqui	
Water-Stained Leaves (B9)	,				phic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:					
Surface Water Present? Yes	No [Depth (inches):			
Water Table Present? Yes	No 🖊 🛚	Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No [Depth (inches):	Wetland H	lydrology Presen	t? Yes No
Describe Recorded Data (stream gauge, r	monitoring wel	II, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					
Remarks.					

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

Sampling Point: Wauy005_u

0	Absolute	Dominant In		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:0) 1. none	% Cover 0	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				
3		<u> </u>		Total Number of Dominant Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 0 (A/B)
				That Are OBL, FACW, or FAC: (A/B)
6 7.				Prevalence Index worksheet:
·	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 0		total cover:	0	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 0	2070 01	total 00 vol		FACW species0 x 2 =0
1. none	0			FAC species 0 x 3 = 0
				FACU species 35 x 4 = 140
				UPL species0 x 5 =0
3				Column Totals: 35 (A) 140 (B)
4				(1)
5				Prevalence Index = B/A =4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
2		= Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Zea mays	65	Yes		1 Toblematic Hydrophytic vegetation (Explain)
2. Ambrosia artemisiifolia	20	Yes	FACU	1 Indicators of hydric soil and watland hydrology must
3. Oxalis corniculata	15	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				John Mone of Four Pogotation Gradua
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8		<u> </u>		
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.			-	
	100	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover:		total cover:		
Woody Vine Stratum (Plot size: 0)				Woody vine – All woody vines greater than 3.28 ft in
1 none	0			height.
2.			•	
3				
4				
-	-			Hydrophytic
5	0	Tatal Causan		Vegetation Present? Yes No
50% of total cover: 0		= Total Cover total cover:	0	
		total cover		
Remarks: (Include photo numbers here or on a separate si	neet.)			

Depth	Matrix		Redox Features		
inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Lo	<u>C²</u> <u>Texture</u>	Remarks
0-12	10YR 4/4	100		SIL	
12-18	10YR 5/4	100		SICL	
	-				
					_
vne: C=C	oncentration D=Der	oletion RM-Re	educed Matrix, MS=Masked Sand Grains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators:	olotion, rtivi–rte	Sadoca Matrix, Mo-Masica Saria Grains.		dicators for Problematic Hydric Soils ³ :
_ Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147 149\	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 1		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	40)	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	·ο (Λ11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	e (ATT)	Redox Depressions (F8)		Other (Explain in Kemarks)
	Aucky Mineral (S1) (I	I DD N	Iron-Manganese Masses (F12) (LRR	N	
	A 147, 148)	LKK N,	MLRA 136)	IN,	
			· · · · · · · · · · · · · · · · · · ·	31	Indicators of hydrophytic vegetation and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surface (F13) (MLRA 136, 12 Piedmont Floodplain Soils (F19) (MLI		Indicators of hydrophytic vegetation and wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 12		unless disturbed or problematic.
	Layer (if observed)	-	Red Falent Material (F21) (MERA 12	1, 147)	dilless disturbed of problematic.
	Layer (II observeu)	•			
Type:			_		
Depth (in	ches):		<u> </u>	Hydric S	oil Present? Yes No
emarks:					



Upland data point wauy005_u facing east



Upland data point wauy005_u facing north

Project/Site: Atlantic Coast Pipeline		City/C	county: Augusta County		Sampling Date: 7/18/2016
Applicant/Owner: Dominion				State: VA	Sampling Point: Wauy004e_w
		Section	on, Township, Range: No	PLSS in this area	1
Landform (hillslope, terrace, etc.): Valley					
Subregion (LRR or MLRA): S					
Soil Map Unit Name: Chavies fine sandy	/ loam			NWI classific	ation: PEM
Are climatic / hydrologic conditions on the	e site typical fo	r this time of year? Y	es No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or F					
Are Vegetation, Soil, or F					
SUMMARY OF FINDINGS – At					
				<u> </u>	, , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Hydric Soil Present?		No No	Is the Sampled Area		
Wetland Hydrology Present?		No	within a Wetland?	Yes	No
Remarks:	103				
HADBOI OCA					
HYDROLOGY				Casandan India	tors (minimum of two required)
Wetland Hydrology Indicators:					ators (minimum of two required)
Primary Indicators (minimum of one is a		* * * * *	D4.4)	Surface Soil	
High Water Table (A2)	Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)				getated Concave Surface (B8)
Saturation (A3)	es on Living Roots (C3)	Drainage Patterns (B10) ots (C3) Moss Trim Lines (B16)			
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)	Stunted or S	tressed Plants (D1)
Iron Deposits (B5)				Geomorphic	Position (D2)
Inundation Visible on Aerial Image	ry (B7)			Shallow Aqu	
Water-Stained Leaves (B9)					aphic Relief (D4)
Aquatic Fauna (B13)			<u>, </u>	FAC-Neutral	Test (D5)
Field Observations:	🗸	5 4 ()			
		Depth (inches):			
		Depth (inches):		hadrala ma Drana a	.42 Vaa V Na
Saturation Present? Yes (includes capillary fringe)	NO	Depth (inches):	wetiand r	Hydrology Preser	t? Yes No
Describe Recorded Data (stream gauge	e, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:	
Demonto					
Remarks:					

Sampling	Point: Wauy004e_	W
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,	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
1 none	0	Ороскос.	<u>Otatao</u>	Number of Dominant Species That Are OBL_FACW_or FAC: 3 (A)
"				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4		·		(=)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
7.				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species45 x 1 =45
0070 01 10101 00701.	20% of	total cover:		30 60
Sapling/Shrub Stratum (Plot size:)				FACW species x z =
1. none	0			FAC species x 3 =
2		·		FACU species0 x 4 =0
				UPL species0 x 5 =0
3				00 150
4				Column Totals: (A) (B)
5				
				Prevalence Index = B/A =1.66
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				
J	0			✓ 3 - Prevalence Index is ≤3.0 ¹
0		= Total Cover	0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				
1 Juncus effusus	30	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Scirpus atrovirens	25	Yes	OBL	
				¹ Indicators of hydric soil and wetland hydrology must
3. Glyceria striata	20	Yes	OBL	be present, unless disturbed or problematic.
4. Juncus tenuis	15	No	FAC	Definitions of Four Vegetation Strata:
5.				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				
٥				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 Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:		total cover:		or orze, and woody plante loop than orze it tall.
	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 0)				height.
1. <u>none</u>	0			
2.				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover: 0		total cover:	0	
0070 01 total 00vc1.		total cover		
Remarks: (Include photo numbers here or on a separate si	neet.)			

	Matrix	0/		ox Features		1 2	- .	5
(inches) 0-10	Color (moist) 10YR 4/2	<u>%</u> 85	Color (moist) 7.5YR 4/6	<u>%</u> 15	Type ¹ C	Loc ²	Texture SIC	Remarks
10-18	10YR 5/2	85	7.5YR 4/6	15	C	M	SIC	
		-						
	-							
		-		-				
			-					
vpe: C=C	oncentration, D=Dep	letion. RM	I=Reduced Matrix. M	IS=Masked	Sand Gra	ins.	² Location: I	PL=Pore Lining, M=Matrix.
	Indicators:			·······································	<u> </u>		Indic	cators for Problematic Hydric Soils ³ :
_ Histosol	(A1)		Dark Surfac	e (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue B		e (S8) (M	LRA 147,		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark S		. , .		,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gley			,		Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma					(MLRA 136, 147)
_ 2 cm Mı	uck (A10) (LRR N)		Redox Dark	Surface (F6	6)			Very Shallow Dark Surface (TF12)
_ Depleted	d Below Dark Surfac	e (A11)	Depleted Da	ark Surface	(F7)			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depr					
_ Sandy N	Mucky Mineral (S1) (I	LRR N,	Iron-Manga	nese Masse	s (F12) (l	.RR N,		
MLR/	A 147, 148)		MLRA 1	36)				
	Gleyed Matrix (S4)		Umbric Surf	ace (F13) (F	MLRA 13	6, 122)	³ ln	dicators of hydrophytic vegetation and
_ Sandy F	Redox (S5)		Piedmont Fi	loodplain Sc	ils (F19)	(MLRA 14	8) w	retland hydrology must be present,
_ Stripped	d Matrix (S6)		Red Parent	Material (F2	21) (MLR	A 127, 147) u	nless disturbed or problematic.
estrictive l	Layer (if observed):							
Type:								
. ۲۲۰۰							Hydric So	il Present? Yes No
Depth (in	ches):							· · · · · · · · · · · · · · · · · · ·
Depth (in	ches):							
Depth (in	ches):							
Depth (in	ches):							
Depth (in	ches):							
Depth (in	ches):							
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Depth (in	ches):							
	ches):							
Depth (in	ches):							
Depth (in	ches):							
Depth (in	ches):							
Depth (in	ches):							



Wetland data point wauy004e_w facing southwest



Wetland data point wauy004e_w facing east

State VA Sampling Point: Watuy004_u wastigator(s): KO; SA Section, Township, Range: NO PLSS in this area NO PLSS in this area Stope (%); 0 Subregion (LRR or MLRA): S Lat: 38.21392751 Long: 79.37011977 Datum; WGS 1984 Doing Map Unit Name: Chavies fine sandy loam NWI classification: PLAND Datum; WGS 1984 Doing Map Unit Name: Chavies fine sandy loam NWI classification: PLAND
Section, Township, Range No PLSS in this area Solope (%); 0 Solope (%)
Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): S Lat: 38.21392751 Long: -79.37011977 Datum: WGS 1984 Doll Map Unit Name: Chavies fine sandy loam NWI classification: UPLAND ver climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) ver Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No ver Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No vereaulty
Chavles fine sandy loam NWI classification: No fine sandy loam NWI classification: Chavles fine sandy loam No f
re climatic / hydrologic conditions on the site typical for this time of year? Yes No
we Vegetation V., Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No ver Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?
revegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No V Is the Sampled Area within a Wetland? Yes No V Wetland Hydrology Present? Yes No V Is the Sampled Area within a Wetland? Yes No V Is the Sampled Area within
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Veltand Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Upland data point taken in active hayfield and pasture with disturbed vegetation. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Sutautation (A3) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Indications (True Aquatic Plants) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B9) Moritage Sparsely Vegetated Concave Surface (B9) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B9) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (C7) Sparsely Vegetated Concave Surface (B9) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (C7) Surface Soil Cracks (B6) Surfac
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators with disturbed vegetation. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Prith Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Wetland Hydrology Present? Yes No ✓ Remarks: Upland data point taken in active hayfield and pasture with disturbed vegetation. ### Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Remarks: Upland data point taken in active hayfield and pasture with disturbed vegetation. ### Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:Secondary Indicators (minimum of two required)Primary Indicators (minimum of one is required; check all that apply)Surface Soil Cracks (B6)Surface Water (A1)True Aquatic Plants (B14)Sparsely Vegetated Concave Surface (B8)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 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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Mater Stained Leaves (B9) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Surface Water (A1)
High Water Table (A2)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Microtopographic Relief (D4)
Water Marks (B1)
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) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Microtopographic Relief (D4)
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)
Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
First Observations
Field Observations: Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No V
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

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

Sampling Point, Madyoot_c	Sampling	Point: Wauy004_	_u
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	Absolute	Dominant Ir		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. none				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				(B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove		Total % Cover of: Multiply by: OBL species 0 x 1 = 0
50% of total cover: 0	20% of	total cover:	0	ODL species
Sapling/Shrub Stratum (Plot size: 0				FACW species x 2 =
1 none	0			FAC species0 x 3 =0
				FACU species 100 x 4 = 400
2				UPL species 0 x 5 = 0
3				100 400
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =4
6		_	_	1 Tevalence index = D/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover:	20% of	total cover:	0	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1 Anthoxanthum odoratum	25	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Trifolium repens	25	Yes	FACU	
3. Phleum pratense	20	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Trifolium pratense	20	Yes	FACU	Definitions of Four Vegetation Strata:
5. Solanum carolinense	10	No	FACU	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
				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
	100	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:		total cover:		
Woody Vine Stratum (Plot size: 0)				Woody vine – All woody vines greater than 3.28 ft in
, none	0			height.
2				
3				
4				Hadaan bada
5				Hydrophytic Vegetation
<u> </u>	_	Tatal Cause		Present? Yes No
FOOV of total course		= Total Cove	0	
50% of total cover:		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth (Matrix		Redox Features	. 2	T	5
ches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹	Loc ²	<u>Texture</u>	Remarks
0-10	10YR 4/3	100			SIL	refusal due to compacted soil
		· — — —				-
		- <u></u>				
	· -					
						-
					2	
		letion, RM=Re	educed Matrix, MS=Masked Sand G	irains.		L=Pore Lining, M=Matrix.
dric Soil	Indicators:				Indica	ators for Problematic Hydric Soils ³ :
_ Histoso	l (A1)		Dark Surface (S7)		2	cm Muck (A10) (MLRA 147)
_ Histic E	pipedon (A2)		Polyvalue Below Surface (S8)	MLRA 147,	148) C	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Surface (S9) (MLRA	147, 148)		(MLRA 147, 148)
_ Hydroge	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		P	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)		V	ery Shallow Dark Surface (TF12)
_ Deplete	ed Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		c	Other (Explain in Remarks)
_ Thick D	ark Surface (A12)		Redox Depressions (F8)			
	Mucky Mineral (S1) (L	_RR N,	Iron-Manganese Masses (F12)	(LRR N,		
	A 147, 148)		MLRA 136)	•		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 1	36, 122)	³ Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19			etland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (ML			less disturbed or problematic.
estrictive	Laver (if observed):				Ī	·
Type: CC	ompaction					
			_		Unalis Call	Dunnant Van
	nches): 10		_		Hydric Soil	Present? Yes No
emarks:						



Upland data point wauy004_u facing east



Upland data point wauy004_u facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 3/9/2016					
Applicant/Owner: DOMINION			Sampling Point: wauc110e_w				
Investigator(s): Team C			on, Township, Range: No				
Landform (hillslope, terrace, etc.): D							
Subregion (LRR or MLRA): S	L	at: 38.22470756	Long: -79.5	35812724	Datum: WGS 1984		
Soil Map Unit Name: Craigsville cob		NWI classif	ication: None				
Are climatic / hydrologic conditions of	on the site typical						
Are Vegetation, Soil,	or Hydrology	significantly distur	bed? Are "Normal	Circumstances"	present? Yes No		
Are Vegetation, Soil,							
SUMMARY OF FINDINGS -							
Hydrophytic Vegetation Present?	Ves V						
Hydric Soil Present?	Yes V	′ No ′ No	Is the Sampled Area	V V	No		
Wetland Hydrology Present?		No	within a Wetland?	Yes	NO		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:					ators (minimum of two required)		
Primary Indicators (minimum of one				Surface Soi			
Surface Water (A1)		_ True Aquatic Plants (egetated Concave Surface (B8)		
High Water Table (A2)		_ Hydrogen Sulfide Od		<u>✓</u> Drainage P			
Saturation (A3)			• , ,	Moss Trim	` '		
Water Marks (B1) Sediment Deposits (B2)	_	Presence of ReducedRecent Iron Reduction	` '	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Sediment Deposits (B2) Drift Deposits (B3)	_	Thin Muck Surface (-			
Algal Mat or Crust (B4)	_	Other (Explain in Rer		Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	_		name,		c Position (D2)		
Inundation Visible on Aerial Im	agery (B7)			Shallow Aquitard (D3) Microtopographic Relief (D4)			
Water-Stained Leaves (B9)							
Aquatic Fauna (B13)				FAC-Neutra			
Field Observations:							
		Depth (inches):					
Water Table Present? Yes	s <u> </u>	Depth (inches):	10				
	s <u> </u>	Depth (inches):	0 Wetland H	lydrology Prese	nt? Yes <u>/</u> No		
(includes capillary fringe) Describe Recorded Data (stream g	nauge monitoring	n well aerial photos pre	evious inspections) if ava	ilable.			
Boothbo Hoodidea Bata (offeath) g	augo, momonii	g won, donar priotos, pro	rriodo mopodilonoj, ii ava	masio.			
Remarks:							
Wetland hydrology present							

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

/EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: wauc110e_w
	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species That Are ORL FACW or FAC: 2 (A)
1			-	That Are OBL, FACW, or FAC: 2 (A)
2 3.				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 66.66666666 (A/B)
6				Prevalence Index worksheet:
1	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)	2070 01	total oover.		FACW species 50
1 Rubus argutus	20	Yes	FACU	FAC species25 x 3 =75
2	-			FACU species 30 x 4 = 120
3				UPL species0 x 5 =0
				Column Totals: 105 (A) 295 (B)
4 5.				
5 6		· ——		Prevalence Index = B/A = 2.8
		· ——		Hydrophytic Vegetation Indicators:
/		· ——		1 - Rapid Test for Hydrophytic Vegetation
8 9.				2 - Dominance Test is >50%
ə	20	= Total Cove		✓ 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 10		total cover:	4	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size:5)	2070 01	101ai 0010i		data in Remarks or on a separate sheet)
1 Juncus effusus	50	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Dichanthelium clandestinum	25	Yes	FAC	
3. Solidago canadensis	10	No	FACU	¹ 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
8				height.
9.				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10 11.				
11	85	Total Caus		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover:42.5		= Total Cover:		of size, and woody plants less than 3.20 it tall.
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1				height.
2.				
<u></u>				
4				
5				Hydrophytic Vegetation
o	0	= Total Cove		Present? Yes No
50% of total cover: 0		total cover:	^	
Remarks: (Include photo numbers here or on a separate s				
Tomanor (morado proto manuscro noro en en el coparato e				

Depth	(2000		pth needed to docum				tile absence	or maicators.)
	Matrix	0/	Redox	Features		12	T t	Damada
(inches) 0-12	Color (moist) 2.5 Y 5/2	<u>%</u> 95	Color (moist) 2.5 Y 5/6	<u>%</u> 5	Type ¹ C	Loc ² PL/M	Texture SL	Remarks
			2.5 1 5/0					
12-18	2.5 Y 3/3	20					SL	
					-			• •
		-						
								• •
			·					· -
								• •
1			· 	 .			2	
		letion, RN	M=Reduced Matrix, MS	=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil I								eators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel				148) (Coast Prairie Redox (A16)
Black His			Thin Dark Su			47, 148)	_	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		-2)		<u> </u>	Piedmont Floodplain Soils (F19)
	Layers (A5)		<u>✓</u> Depleted Mat		•			(MLRA 136, 147)
	ck (A10) (LRR N)	- (044)	Redox Dark S	•	•			Very Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dar				_ (Other (Explain in Remarks)
	irk Surface (A12)	DD N	Redox Depre			I DD N		
	lucky Mineral (S1) (L	.KK N,	Iron-Mangane		s (F12) (LKK N,		
	147, 148) leyed Matrix (S4)		MLRA 136	•	MIDA 12	6 122)	3 _{1n} ,	dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					nless disturbed or problematic.
	ayer (if observed):		Neu Faieiii iv	iateriai (F2	21) (WILK	A 127, 147) ui	iless disturbed of problematic.
	ayer (ii observeu).							
Type:								
Depth (inc	ches):						Hydric Soi	I Present? Yes No
Remarks:								
Hydric soil ind	icators present							



Photo 1
Wetland data point WAUC110e_w facing south



Photo 2
Wetland data point WAUC110e_w facing north

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 3/9/2016							
Applicant/Owner: DOMINION		State: VA				Sampling Point: wauc110_u			
				tion, Township, Range:					
Landform (hillslope, terrace, etc.): Field						Slope (%): <u>1</u>			
Subregion (LRR or MLRA): S									
Soil Map Unit Name: Craigsville cobbly sa	andy loam				NWI classi	fication: None			
Are climatic / hydrologic conditions on the		or this tin							
Are Vegetation, Soil, or Hy									
Are Vegetation, Soil, or Hy									
SUMMARY OF FINDINGS – Att									
Hydrophytic Vegetation Present?	Yes			Is the Sampled Are					
Hydric Soil Present?	Yes Yes			within a Wetland?	Yes	No			
Wetland Hydrology Present? Remarks:	res	NO							
HYDROLOGY									
Wetland Hydrology Indicators:					Secondary Indi	cators (minimum of two required)			
Primary Indicators (minimum of one is re	equired; chec	k all that	apply)		Surface Soil Cracks (B6)				
Surface Water (A1)	•		quatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)			en Sulfide O		Drainage Patterns (B10)				
Saturation (A3)	_	Oxidize	d Rhizosphe	eres on Living Roots (C	3) Moss Trim Lines (B16)				
Water Marks (B1)		Present	ce of Reduce	ed Iron (C4)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	_	Recent	Iron Reducti	on in Tilled Soils (C6)					
Drift Deposits (B3)			uck Surface (Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Re	emarks)	· · · · · · · · · · · · · · · · · · ·	Stressed Plants (D1)			
Iron Deposits (B5)	, (D7)					ic Position (D2)			
 Inundation Visible on Aerial Imagery Water-Stained Leaves (B9)	(D1)					quitard (D3) graphic Relief (D4)			
Aquatic Fauna (B13)					FAC-Neutr				
Field Observations:						41 1001 (20)			
	No	Depth	(inches):						
	No 🗸								
Saturation Present? Yes	No 🗸				d Hydrology Pres	ent? Yes No			
(includes capillary fringe) Describe Recorded Data (stream gauge	monitoring v	vell aeri	al photos pr	revious inspections) if a	available:				
December Necestada Bata (ettoatii gaage	, monitoring .	ron, aon	ai priotoo, pi	ovious inspessions), ii e	avanabio.				
Remarks:									
No wetland hydrology present									

EGETATION (Four Strata) – Use scientific	names of	plants.		Sampling Point: wauc110_u	_
20	Absolute	Dominant In		Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC:1 (A)	
2				Total Number of Dominant	
3				Species Across All Strata: 3 (B)	
4				Description of Description	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33333333 (A/E	٦)
6				That the GBE, thew, of the	
7				Prevalence Index worksheet:	_
	0	= Total Cove		Total % Cover of: Multiply by:	
50% of total cover:		f total cover:_	^	OBL species x 1 =0	
Sapling/Shrub Stratum (Plot size: 15)		_		FACW species0 x 2 =0	
1				FAC species 20 x 3 = 60	
າ				FACU species 50 x 4 = 200	
2				UPL species 0 x 5 = 0	
3				Column Totals: 70 (A) 260 (B	Λ
4				(-)	,
5. <u> </u>		<u> </u>		Prevalence Index = B/A = 3.71	
6				Hydrophytic Vegetation Indicators:	
7		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation	
8				2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
		= Total Cove		4 - Morphological Adaptations¹ (Provide supporting the support the supporting the support the suppor	24
50% of total cover:	20% of	f total cover:_	0	data in Remarks or on a separate sheet)	ıy
Herb Stratum (Plot size:5					
1. Cardamine hirsuta	35	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Setaria parviflora	20	Yes	FAC		
3. Solanum carolinense	15	Yes	FACU	¹ 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
				more in diameter at breast height (DBH), regardless of	ıf
7 o				height.	
8				Sapling/Shrub – Woody plants, excluding vines, less	
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10				m) tan.	
11		-		Herb – All herbaceous (non-woody) plants, regardles	S
50% of total cover: 3		= Total Cove		of size, and woody plants less than 3.28 ft tall.	
0070 01 10101 00001.	20% ot	f total cover:_	14	Woody vine – All woody vines greater than 3.28 ft in	
Woody Vine Stratum (Plot size:)				height.	
1		<u> </u>			
2					
3					
4				Hydrophytic	
5				Vegetation	
	0	= Total Cove	r	Present? Yes No	
50% of total cover:		f total cover:_	0		
Remarks: (Include photo numbers here or on a separate	sheet.)			. I	
	,				

Profile Desc	ription: (Describe to	o the depth	needed to docun	nent the i	ndicator	or confirm	the absend	ce of indicat	tors.)	
Depth	Matrix		Redo	x Features	3					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remarks	
0-18	10 YR 3/3	100					SL	_		
					-			_		
					-					
								_		
								_		
					-					
										_
					-		-			
	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.			ning, M=Matrix.	
Hydric Soil	Indicators:						Ind		Problematic Hyd	
Histosol			Dark Surface				_		(A10) (MLRA 14	17)
	pipedon (A2)		Polyvalue Be				148)		ie Redox (A16)	
Black Hi			Thin Dark Su			47, 148)		(MLRA 1		
	n Sulfide (A4)		Loamy Gleye		F2)		_		loodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 1		(TT + 2)
	ick (A10) (LRR N)	(111)	Redox Dark S	•	,		_		w Dark Surface	
	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Dar Redox Depre				_	Otner (Expi	ain in Remarks)	
	fucky Mineral (S1) (L l	RR N	Iron-Mangan			RRN				
	147, 148)	ixix i v ,	MLRA 13		55 (1 12) (LIXIX IN,				
	Gleyed Matrix (S4)		Umbric Surfa		MIRA 13	6. 122)	31	ndicators of I	hydrophytic vege	etation and
	ledox (S5)		Piedmont Flo						ology must be p	
	Matrix (S6)		Red Parent N					-	bed or problema	
	_ayer (if observed):				, (,	<u>, </u>			
Type:	, ,									
	ches):		_				Hydric S	oil Present?	Yes	No 🗸
	Jiles)		=				Tiyunc 30	on riesent:	163	NO
Remarks:	nrocent									
No hydric soil	present									



Photo 1 Upland data point WAUC110_u facing southeast



Photo 2
Upland data point WAUC110_u facing southwest

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County		Sampling Date: 6/14/2016	
Applicant/Owner: DOMINION				Sampling Point: wauz009e_w	
Investigator(s): Team Z		Section, Township, Range: No			
Landform (hillslope, terrace, etc.): Flo				Slope (%): 1	
Subregion (LRR or MLRA): S					
Soil Map Unit Name: Philo silt loam	Lai				
Are climatic / hydrologic conditions or					
Are Vegetation, Soil,	or Hydrology significa	antly disturbed? Are "Normal	Circumstances" pr	esent? Yes No	
Are Vegetation, Soil,	or Hydrologynaturally	y problematic? (If needed, e	explain any answers	s in Remarks.)	
SUMMARY OF FINDINGS -	Attach site map show	ing sampling point locatio	ns, transects,	important features, etc.	
Hydrophytic Vegetation Present?	versal Versal Ne				
Hydric Soil Present?	Yes <u>'</u> No Yes <u>'</u> No	is the Sampled Area	🗸		
Wetland Hydrology Present?	Yes No	within a wettana:	Yes	No	
Remarks:					
This is a linear PEM wetland drainag	e area below a pond.				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum of one	is required; check all that an		Surface Soil C		
Surface Water (A1)	True Aquat		·	etated Concave Surface (B8)	
High Water Table (A2)		Sulfide Odor (C1)	Sparsely vege Drainage Patte		
Saturation (A3)		hizospheres on Living Roots (C3)	Moss Trim Lin		
Water Marks (B1)		of Reduced Iron (C4)		/ater Table (C2)	
Sediment Deposits (B2)		Reduction in Tilled Soils (C6)	Crayfish Burro		
Drift Deposits (B3)		Surface (C7)		ible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		lain in Remarks)		essed Plants (D1)	
Iron Deposits (B5)	(,	Geomorphic F	, ,	
Inundation Visible on Aerial Ima	igery (B7)		Shallow Aquita	` '	
Water-Stained Leaves (B9)				phic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutral T	` '	
Field Observations:					
Surface Water Present? Yes	No Depth (inc	:hes):			
	No Pepth (inc				
	No Depth (inc		lydrology Present	? Yes V No	
(includes capillary fringe)		·			
Describe Recorded Data (stream ga	uge, monitoring well, aerial p	hotos, previous inspections), if avai	ilable:		
Remarks:					
rtomane.					

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

/EGETATION (Four Strata) – Use scientific na	annes or	ριαιτιο.		Sampling Point: wauz009e_w
	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30) 1. none	0	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				, , ,
3				Total Number of Dominant Species Across All Strata: 3 (B)
4				Opedies Across Air Otrata.
5.				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
<i>1</i>	0			Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cove	r O	OBL species 50 x 1 = 50
15	20% 01	total cover:_		FACW species 40 x 2 = 80
Sapling/Shrub Stratum (Plot size:) 1 none	0			FAC species 10 x 3 = 30
·				FACU species 0 x 4 = 0
2				0 0
3				100 160
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 1.6
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	r	
50% of total cover:0	20% of	total cover:_	0	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1. Carex lurida	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juncus effusus	30	Yes	FACW	
3. Carex vulpinoidea	20	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Dichanthelium clandestinum	10	No	FAC	
5 Impatiens capensis	10	No	FACW	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
·				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				ini) taii.
11	100			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 50		= Total Cove	r 20	of size, and woody plants less than 3.28 ft tall.
0070 01 10101 00701.	20% 01	total cover:_		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:) 1. none	0			height.
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove		Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
	20% of		r 0	Present? Yes No No

Sampling Point: wauz009e_w

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10YR 4/2	100					SICL	
3-18	10YR 5/2	60	10YR 5/4	40	С	PL/M	SICL	
								
·	-							
					-			
		· ——						
					-			
					-			
		letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
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				, <u> </u>	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, ,	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma		,			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	, ,	3)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	ark Surface (A12)	- ()	Redox Depre					(=)
	Mucky Mineral (S1) (L	RR N	Iron-Mangan			RR N		
	A 147, 148)		MLRA 13		o (i .z) (
	Gleyed Matrix (S4)		Umbric Surfa	-	MIRA 13	6 122)	³ Inc	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 r arent n	iateriai (i z	- 1) (IVILIX	A 121, 141	T un	iless disturbed of problematic.
	Layer (ii Observeu).							
Type:								.,
Depth (in	ches):						Hydric Soil	l Present? Yes No
Remarks:								



Wetland data point WAUZ009e_w facing southwest, culvert



Wetland data point WAUZ009e_w facing northeast



Wetland data point WAUZ009e_w facing northwest

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County Sampling Date: 6/14/201						
Applicant/Owner: DOMINION				Sampling Point: wauz009_u				
		Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): Floodp								
Subregion (LRR or MLRA): S	Lat	. 38.229	13879	Long: -79	9.35461678	Datum: WGS 1984		
Soil Map Unit Name: Philo silt loam					NWI classi	fication: UPL		
Are climatic / hydrologic conditions on the	site typical fo	or this tir	me of year?	Yes No No	(If no, explain in	Remarks.)		
Are Vegetation, Soil, or H								
Are Vegetation, Soil, or H								
SUMMARY OF FINDINGS – Att								
					<u> </u>	<u> </u>		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes			Is the Sampled Area				
Wetland Hydrology Present?	Yes			within a Wetland?	Yes	No		
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:						cators (minimum of two required)		
Primary Indicators (minimum of one is re					Surface So			
Surface Water (A1)			quatic Plants		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)			
High Water Table (A2)		-	en Sulfide O		_			
Saturation (A3)			ce of Reduce	eres on Living Roots (C3)	Moss Trim Lines (B16)Dry-Season Water Table (C2)			
Water Marks (B1) Sediment Deposits (B2)				ion in Tilled Soils (C6)				
Drift Deposits (B3)			uck Surface (Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	_		Explain in Re			Stressed Plants (D1)		
Iron Deposits (B5)	_	(,		ic Position (D2)		
Inundation Visible on Aerial Imagery	y (B7)				Shallow Ac			
Water-Stained Leaves (B9)						graphic Relief (D4)		
Aquatic Fauna (B13)					FAC-Neutr	al Test (D5)		
Field Observations:								
Surface Water Present? Yes	No	Depth	(inches):					
Water Table Present? Yes	No	_ Depth	(inches):					
Saturation Present? Yes (includes capillary fringe)	No	_ Depth	(inches):	Wetland	and Hydrology Present? Yes No			
Describe Recorded Data (stream gauge	, monitoring v	well, aer	ial photos, pr	evious inspections), if a	vailable:			
Remarks:								
remane.								

/EGETATION (Four Strata) – Use scientific n	names of	plants.		Sampling Point: wauz009_u
20	Absolute	Dominant Ir		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1. none	% Cover 0	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4.	· —			
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
6				Inat Ale Obl., FACVV, OI FAC (A/D)
7				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 0		f total cover:	^	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1. none	0			FAC species0 x 3 =0
2				FACU species x 4 = 280
0				UPL species
				Column Totals: 70 (A) 280 (B)
4				V / (/
5		,		Prevalence Index = B/A =4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
		= Total Cover	^	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	f total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5	10			Problematic Hydrophytic Vegetation¹ (Explain)
1. Phleum pratense	40	Yes	FACU	Troblematio riyarophytic vegetation (Explain)
2. Dipsacus fullonum	20	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Arctium lappa	20	Yes		be present, unless disturbed or problematic.
4. Allium vineale	10	No	FACU	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.				
	90	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45		= rotal cover f total cover:	18	Of Size, and woody planto 1000 than Size it tail.
Woody Vine Stratum (Plot size: 30)	20,0 c.	total 55.5		Woody vine – All woody vines greater than 3.28 ft in
1. none	0			height.
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes No
500/ // / 0		= Total Cover	r 0	Present? TesNO
50% of total cover:0		f total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)	_	_	

Sampling Point: wauz009_u

Depth	Matrix		Redox Features		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc		e Remarks
0-3	10YR 4/3	100		SIL	
3-19	10YR 5/3	100		SIL	
		· — — —			
		· — — —			 -
		· — — —			
		· 			
		letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		n: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators:			In	dicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface (S7)		_ 2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairie Redox (A16)
	stic (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) (L	RR N.	Iron-Manganese Masses (F12) (LRR I	٧.	
	A 147, 148)	,	MLRA 136)	-,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	2)	³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed):		Near arent Material (121) (META 121	, ,	diffees distarbed of problematic.
	Layer (ii observeu).				
Type:			_		
Depth (in	ches):		_	Hydric	Soil Present? Yes No
Remarks:					



Upland data point wauz009_u facing west



Upland data point wauz009_u facing south

Project/Site: Atlantic Coast Pipeline		City/County: Augusta County			Sampling Date: 4/9/2016	
Applicant/Owner: Dominion		State: VA		State: VA	Sampling Point: waua402s_w	
Investigator(s): RP, GB Section, Township, Range: No PLSS in this area						
• ',	Local relief (concave, convex, none): microtopography Slope (%):2					
Subregion (LRR or MLRA): S Lat						
Soil Map Unit Name: Berks channery	silt loam, 45 to 60) percent slopes		NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)						
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No						
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present?	Yes 🗸	No				
Hydric Soil Present?		No	Is the Sampled Area within a Wetland?	V V	No	
Wetland Hydrology Present?		No		res	NO	
Remarks:						
seep.						
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)				Surface Soi	l Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14)					egetated Concave Surface (B8)	
High Water Table (A2) Hydrogen S						
		Oxidized Rhizospheres on Living Roots (C3)		Moss Trim L	, ,	
		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)		
		Recent Iron Reduction in Tilled Soils (C6)		Crayfish Burrows (C8)		
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (C7) Other (Explain in Remarks)		Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)		
Iron Deposits (B5)		Other (Explain in Remarks)		Geomorphic Position (D2)		
Inundation Visible on Aerial Image			Shallow Aqu			
Water-Stained Leaves (B9)	Jory (Dr)			✓ Microtopographic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral Test (D5)		
Field Observations:					()	
	No 🗸	Depth (inches):				
· ·		Depth (inches):				
			0 Wetland h	lydrology Present? Yes No		
(includes capillary fringe)						
Describe Recorded Data (stream ga	uge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:		
Remarks:						
hydrology supported by seep paua40	4					