Project/Site: Atlantic Coast Pipeline	City/County: Po	ocahontas County	Sampling Date: 5/27/2016			
Applicant/Owner: Dominion		State: WV				
Investigator(s): GB, KO	Section, Towns	hip, Range: <u>No PLSS in this area</u>				
Landform (hillslope, terrace, etc.): ridge saddle		ve, convex, none): <u>concave</u>	Slope (%): <u>2</u>			
Subregion (LRR or MLRA): N Lat: <u>38.374714</u>	79	Long: <u>-80.06143535</u>	Datum: WGS 1984			
Soil Map Unit Name:		NWI classifica	ation: None			
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes 🗹	_ No (If no, explain in Re	emarks.)			
Are Vegetation, Soil, or Hydrology significa	ntly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No			
Are Vegetation, Soil, or Hydrology naturally	/ problematic?	(If needed, explain any answer	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
Coturated DEO watland lagated in donre	action on ridge	anddla alana Duzza	d Didaa budralaau fram nar	had water abo	a alou harizon NICMAN- haain

Saturated PFO wetland located in depression on ridge saddle along Buzzard Ridge, hydrology from perched water above clay horizon. NCWAM= basin wetland.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks:	

# Sampling Point: wpoa405f\_w

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30</u> )	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1. Acer rubrum	15	Yes	FAC	That Are OBL, FACW, or FAC: 7	(A)
2. Fraxinus pennsylvanica	15	Yes	FACW	Total Number of Deminent	
<sub>3.</sub> Betula alleghaniensis	15	Yes	FAC	Total Number of Dominant Species Across All Strata: 7	(B)
4. Quercus rubra	5	No	FACU		(-)
5. Acer saccharum	5	No	FACU	Percent of Dominant Species	( A /D )
6				That Are OBL, FACW, or FAC:	(A/B)
7				Prevalence Index worksheet:	
/	55	= Total Cove		Total % Cover of: Multiply by:	
50% of total cover: 27.5		total cover:	11	OBL species 45 x 1 = 45	
Sapling/Shrub Stratum (Plot size: 15 )	2070.01			FACW species $\frac{45}{2}$ x 2 = $\frac{90}{2}$	
1 Viola cucullata	10	Yes	FACW	FAC species 39 x 3 = 117	
2. Betula alleghaniensis	5	Yes	FAC	FACU species $19$ x 4 = $76$	•
3. Acer rubrum	4	No	FAC	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	
	4	No	FACU	Column Totals:         148         (A)         328	(P)
4. Fagus grandifolia					_ (B)
5. Picea rubens	3	No	FACU	Prevalence Index = $B/A = 2.21$	
6. Hamamelis ovalis	2	No		Hydrophytic Vegetation Indicators:	
7. Acer pensylvanicum	2	No	FACU	1 - Rapid Test for Hydrophytic Vegetation	
8				$\checkmark$ 2 - Dominance Test is >50%	
9					
	30	= Total Cove	er	$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$	
50% of total cover: 15	20% of	total cover:	6	4 - Morphological Adaptations <sup>1</sup> (Provide supp	orting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)	
1. Carex diandra	20	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	ר)
2. Carex gynandra	15	Yes	OBL		
3. Ranunculus abortivus	10	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology m	iust
4. Impatiens capensis	10	No	FACW	be present, unless disturbed or problematic.	
5. Chelone glabra	5	No	OBL	Definitions of Four Vegetation Strata:	
6. Carex prasina	5	No	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 c	m) or
6. Calex prasina				more in diameter at breast height (DBH), regardle	
7				height.	
8				Sapling/Shrub – Woody plants, excluding vines,	less
9				than 3 in. DBH and greater than or equal to 3.28 that a second seco	
10				m) tall.	
11				Herb – All herbaceous (non-woody) plants, regard	dless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 32.5	20% of	total cover:	13	<b>Woody vine</b> – All woody vines greater than 3.28	ft in
Woody Vine Stratum (Plot size:30)				height.	
1					
2					
3					
4					
5				Hydrophytic Vegetation	
	0	= Total Cove	er	Present? Yes <u>V</u> No	
50% of total cover: 0		total cover:	<u>^</u>		
Remarks: (Include photo numbers here or on a separate s				<u> </u>	
( ,	,				

Profile Desc	cription: (Describe to	the de	oth needed to docun	nent the i	ndicator of	or confirm	the absence of	indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	5YR 3/2	100					CL	
3-18	5YR 4/2	90	5YR 4/6	10	С	М	C	
						·		
						. <u> </u>		
						. <u> </u>		
	oncentration, D=Deple	tion DM		-Mookor	l Sond Cro	ino	<sup>2</sup> Location: DI _ D	Pore Lining, M=Matrix.
Hydric Soil					a Sanu Gra	anns.		rs for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(97)				Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	II RA 147		st Prairie Redox (A16)
	istic (A3)		Thin Dark Su		• • •		·	ILRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			,,	•	mont Floodplain Soils (F19)
Stratifie	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	rix (F3)	,		(N	ILRA 136, 147)
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	-6)		Very	Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Othe	er (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (LF	RR N,	Iron-Mangane		es (F12) <b>(I</b>	LRR N,		
	A 147, 148)		MLRA 13				2	
	Gleyed Matrix (S4)		Umbric Surfa	, ,	•			tors of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	•	. ,	•		nd hydrology must be present,
	d Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	() unless	s disturbed or problematic.
	Layer (if observed):							
Type: <u>cla</u>								
Depth (in	ches): <u> </u>						Hydric Soil Pre	esent? Yes 🥙 No
Remarks:								



Photo 1 Wetland data point WPOA405f\_w facing north



Photo 2 Wetland data point WPOA405f\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: P	ocahontas County	Sampling Date: <u>5/27/2016</u>		
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa405_u		
Investigator(s): GB, KO	Section, Town	ship, Range: <u>No</u> PLSS in this are			
Landform (hillslope, terrace, etc.): ridge saddle		ave, convex, none): <u>none</u>	Slope (%): <u>5</u>		
	at: <u>38.37469126</u> Long: <u>-80.06129433</u>		Datum: WGS 1984		
Soil Map Unit Name:		NWI classifie	cation: None		
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	No (If no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No		
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answe	ers in Remarks.)		

# SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken adjacent to PF	O wetland locate	ed in a slight depres	sion on a ridge saddle.		

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 Sc	pils (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
Saturation Present? Yes No <u>&lt;</u> Depth (inches): (includes capillary fringe)	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
Saturation Present? Yes No Concern Present? Yes Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	

Sampling Point: wpoa405\_u

	Absolute	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )			Status	
1 Fagus grandifolia	30	Yes	FACU	Number of Dominant Species That Are OBL EACW or EAC: $3$ (A)
1. 0 0	25	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)
2. Quercus rubra				Total Number of Dominant
3. Acer saccharum	10		FACU	Species Across All Strata:8 (B)
<sub>4.</sub> Picea rubens	5	No	FACU	
5				Percent of Dominant Species
_				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7	70			Total % Cover of: Multiply by:
05	:	= Total Cover		
50% of total cover: <u>35</u>	20% of	total cover:	14	OBL species $0 \times 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FAC w species $x 2 = $
<sub>1.</sub> Fagus grandifolia	25	Yes	FACU	FAC species x 3 =
2. Acer pensylvanicum	10	Yes	FACU	FACU species x 4 = 480
3. Hamamelis virginiana	5	No	FACU	UPL species 0 x 5 = 0
	5	No	FACU	Column Totals: 135 (A) 525 (B)
4. Picea rubens			1 700	
5				Prevalence Index = $B/A = 3.88$
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 22.5	20% of	total cover:	9	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1. Maianthemum canadense	5	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Viola sagittata	5	Yes	FAC	
3. Luzula multiflora	5	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Carex blanda	5	Yes	FAC	Definitions of Four Vegetation Strata:
5		<u> </u>		
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		<u> </u>		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
	20	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 10		total cover:		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2		<u> </u>		
3				
4				the described in
5				Hydrophytic Vegetation
<u> </u>	-	= Total Cover		Present? Yes No
50% of total cover: 0		total cover:	•	
		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the depth	n needed to docun	nent the in	ndicator	or confirm	the absenc	e of indicato	rs.)	
Depth	Matrix		Redox	k Features	;					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-4	5YR 3/3	100					CL			
4-11	5YR 4/3	100					CL			
11-18	5YR 4/4	100					CL			
		·					2			
	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Linii	0.	
Hydric Soil										lydric Soils <sup>3</sup> :
Histosol	. ,		Dark Surface	. ,				2 cm Muck (A		•
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie		)
	stic (A3)		Thin Dark Su			47, 148)		(MLRA 14		
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)			Piedmont Flo	odplain Soils	s (F19)
Stratified	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 13	6, 147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TF12)			
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)			
·	ark Surface (A12)	. ,	Redox Depre		. ,					,
Sandy M	lucky Mineral (S1) (LF	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(</b>	LRR N,				
MLRA	A 147, 148)		MLRA 130	6)						
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b> I	MLRA 13	6, 122)	<sup>3</sup> In	dicators of hy	/drophytic ve	getation and
Sandy R	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	• <b>8)</b> w	etland hydrol	ogy must be	present,
	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	<b>')</b> u	nless disturbe	ed or problen	natic.
Restrictive I	Layer (if observed):									
Туре:										
Depth (in	ches):						Hydric So	il Present?	Yes	No
Remarks:										



Photo 1 Upland data point WPOA405\_u facing north



**Photo 2** Upland data point WPOA405\_u facing east

Project/Site: Atlantic Coast Pipeline	City/Count	y: Pocahontas County	_ Sampling Date: <u>5/26/2016</u>		
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa404e_w		
Investigator(s): GB, KO	Section, To	ownship, Range: <u>No PLSS in this are</u>	ea		
Landform (hillslope, terrace, etc.): depressio	n Local relief (c	oncave, convex, none): <u>concave</u>	Slope (%): <u>2</u>		
Subregion (LRR or MLRA): <u>N</u>	Lat: <u>38.37393523</u>	Long: <u>-80.06240745</u>	Datum: WGS 1984		
Soil Map Unit Name:		NWI classif	fication: None		
Are climatic / hydrologic conditions on the sit	e typical for this time of year? Yes	✓ No (If no, explain in	Remarks.)		
Are Vegetation, Soil, or Hydro	ology significantly disturbed?	Are "Normal Circumstances"	' present? Yes 🖌 No		
Are Vegetation, Soil, or Hydro	ology naturally problematic?	(If needed, explain any answ	vers in Remarks.)		
SUMMARY OF FINDINGS – Attac	h site map showing samplir	ng point locations, transect	s, important features, etc.		

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:			•			

Saturated to semi-permanently flooded PEM wetland located on a ridge saddle of Buzzard Ridge in a network of depressions and ruts associated with historic logging machinery; water is perched above a clay B horizon; NCWAM key = basin wetland.

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)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3) ✓ Oxidized Rhizospheres on Living R	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 Sol	ls (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):3	
Water Table Present? Yes No _	
Saturation Present? Yes <u></u> No <u>Depth (inches)</u>	Wetland Hydrology Present? Yes <u>V</u> No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	
Remarks.	

Sampling Point: wpoa404e\_w

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		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		·		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				
		·		Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
		= Total Cover	0	OBL species         20         x 1 =         20
50% of total cover:0	20% of	total cover:	0	45 00
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $45$ $x = 90$
1				FAC species $x_3 = $
2				FACU species $0   x 4 = 0$
				UPL species 0 x 5 = 0
3		·		65 110
4				Column Totals: (A) (B)
5		<u> </u>		Prevalence Index = B/A =1.69
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8		·		✓ 2 - Dominance Test is >50%
9				$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:	0	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Leersia virginica	30	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex prasina	15	Yes	OBL	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Carex conjuncta	10	No	FACW	be present, unless disturbed or problematic.
4. Typha latifolia	5	No	OBL	Definitions of Four Vegetation Strata:
5. Juncus effusus	5	No	FACW	Deminions of Four Vegetation of ata.
				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	C.E.	·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 32.5	20% of	total cover:	13	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				- Tongina
2		·	<u> </u>	
3				
4				Hydrophytic
5				Vegetation
		= Total Cover		Present? Yes <u>V</u> No
50% of total cover: 0		total cover:	~	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Des	scription: (Describe t	the de	pth needed to docur	nent the i	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		Color (moist)		Type <sup>1</sup>		<u>Texture</u>	Remarks
0-5	7.5YR 2.5/2	93	7.5YR 5/6	7	С	PL/M	CL	
5-18	7.5YR 4/2	95	7.5YR 5/8	5	С	PL/M	С	
						·		
			·	<u> </u>				
						·		
<sup>1</sup> Type: C=(	Concentration, D=Depl	etion. RM	I=Reduced Matrix, MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location: PI	L=Pore Lining, M=Matrix.
	I Indicators:	ouon, rui						ators for Problematic Hydric Soils <sup>3</sup> :
Histoso	ol (A1)		Dark Surface	(S7)			2	cm Muck (A10) <b>(MLRA 147)</b>
	Epipedon (A2)		Polyvalue Be		ce (S8) <b>(M</b>	ILRA 147,		oast Prairie Redox (A16)
	Histic (A3)		Thin Dark Su		· / ·		· <u> </u>	(MLRA 147, 148)
Hydrog	gen Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		Pi	iedmont Floodplain Soils (F19)
Stratific	ed Layers (A5)		Depleted Ma	rix (F3)				(MLRA 136, 147)
2 cm N	luck (A10) <b>(LRR N)</b>		Redox Dark \$	Surface (F	6)		Ve	ery Shallow Dark Surface (TF12)
Deplet	ed Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		0	ther (Explain in Remarks)
	Dark Surface (A12)		Redox Depre		,			
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(I</b>	LRR N,		
	RA 147, 148)		MLRA 13				3	
	Gleyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	•	• •	•	•	tland hydrology must be present,
	ed Matrix (S6) • Layer (if observed):		Red Parent N	laterial (F	21) (WLR/	A 127, 147	r) uni	less disturbed or problematic.
Type: C								
Depth (i	nches): <u>5</u>						Hydric Soil	Present? Yes <u>V</u> No
Remarks:								



Photo 1 Wetland data point WPOA404e\_w facing east



Photo 2 Wetland data point WPOA404e\_w facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: Pocahontas County	Sampling Date: 5/26/2016
Applicant/Owner: Dominion	State: WV	Sampling Point: wpoa404_u
Investigator(s): GB, KO	_ Section, Township, Range: No PLSS in this ar	ea
Landform (hillslope, terrace, etc.): ridge saddle	ocal relief (concave, convex, none): <u>none</u>	
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.37405027</u>	Long: <u>-80.06243017</u>	Datum: WGS 1984
Soil Map Unit Name:	NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumstances"	" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transec	ts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on a ridge sao	ddle adjacent to	a saturated to semi-	permanently flooded PEM w	etland within a ı	network of depressions and ruts.

Wetland Hydrology Indicato	ors:			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 S	oils (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 Aer	ial Imagery (B7)			Shallow Aquitard (D3)			
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral Test (D5)			
Field Observations:							
Surface Water Present?	Yes No _	Depth (inches):					
Water Table Present?		Depth (inches):					
Waler rable Freseril!	100						
Saturation Present?		Depth (inches):	Wetland I	Hydrology Present? Yes No			
Saturation Present? (includes capillary fringe)	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe)	Yes No _	,		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe)	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes No _	✓ Depth (inches):		, , , , , , , , , , , , , , , , , , , ,			

Sampling Point: wpoa404\_u

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )			Status	
1. Quercus rubra	25	Yes	FACU	Number of Dominant Species           That Are OBL, FACW, or FAC:         1         (A)
2. Acer saccharum	20	Yes	FACU	
	10	No	FACU	Total Number of Dominant
3. Fagus grandifolia				Species Across All Strata: 8 (B)
4. Tsuga canadensis	5	No	FACU	
5				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 12.5 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	60	= Total Cover		
50% of total cover: 30	20% of	total cover:	12	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =0
1. Acer pensylvanicum	10	Yes	FACU	FAC species $\frac{6}{x 3} = \frac{18}{x 3}$
2. Picea rubens	7	Yes	FACU	FACU species $106$ x 4 = $424$
3. Fagus grandifolia	5	No	FACU	UPL species $0 \times 5 = 0$
<sub>4.</sub> Acer saccharum	5	No	FACU	Column Totals: (A) (B)
5. Tsuga canadensis	3	No	FACU	
				Prevalence Index = $B/A = $ 3.94
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
o				2 - Dominance Test is >50%
9	30			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 15	20% of	total cover:	6	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
1. Stellaria pubera	8	Yes		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Dennstaedtia punctilobula	8	Yes	FACU	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Anemone quinquefolia	8	Yes	FACU	be present, unless disturbed or problematic.
<sub>4.</sub> Maianthemum canadense	6	Yes	FAC	• •
5				Definitions of Four Vegetation Strata:
5				<b>Tree</b> – 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
				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
	22	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 15		total cover:		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover	•	Present? Yes No V
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet )			
	1000.)			

Profile Desc	cription: (Describe to	o the depth	n needed to docur	nent the i	ndicator	or confirm	the absence	e of indicato	ors.)
Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-2	7.5YR 2.5/2	100					L		
2-10	7.5YR 3/3	100					CL		
10-18	5YR 4/4	100					CL		
		<u> </u>							
		·						<u> </u>	
								<u> </u>	
								<u></u>	
								·	
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: F	PL=Pore Linir	ng, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Pr	oblematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			:	2 cm Muck (A	A10) <b>(MLRA 147)</b>
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie	Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	irface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)			Piedmont Flo	oodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	6, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		,	Very Shallow	Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Da					•	in in Remarks)
	ark Surface (A12)	<b>、</b> ,	Redox Depre		. ,			<b>、 ·</b>	,
Sandy N	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b>	LRR N,			
MLR	A 147, 148)		MLRA 13	6)					
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> In	dicators of hy	drophytic vegetation and
-	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	. <b>8)</b> w	etland hydrol	logy must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F	21) (MLR	A 127, 147	<b>')</b> u	nless disturbe	ed or problematic.
	Layer (if observed):								
Type: <u>no</u>	ne								
Depth (in	ches):						Hydric So	il Present?	Yes No
Remarks:									



**Photo 1** Upland data point WPOA404\_u facing west



**Photo 2** Upland data point WPOA404\_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: P	ocahontas County	_ Sampling Date: 5/26/2016
Applicant/Owner: Dominion		State: WV	
Investigator(s): GB, KO	Section, Towns	ship, Range: <u>No PLSS</u> in this are	ea
Landform (hillslope, terrace, etc.): skid trail		ive, convex, none): <u>concave</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): N Lat: 38.37	7340659	Long: <u>-80.06249626</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classif	ication: 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 sig	gnificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	turally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing sampling p	point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:			-			

Saturated PEM wetland located in a network of depressions and logging skid trails on a flat (ridge saddle of Buzzard Ridge); connects to and follows intermittent stream spoe001 for a short distance.

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 F	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 So	ils (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)	<ul> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes <u>&lt;</u> No <u>Depth</u> (inches): 0	Wetland Hydrology Present? Yes <u>V</u> No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	
Kondris.	

Sampling Point: wpoa403e\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
		<u> </u>		Number of Dominant Species         That Are OBL, FACW, or FAC:         4         (A)
1				
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6		. <u> </u>		Decoder as in decouverlash and
7				Prevalence Index worksheet:
	0	= Total Cove	r	Total % Cover of:Multiply by:
50% of total cover:0				OBL species <u>15</u> x 1 = <u>15</u>
15	20 % 01	total cover.		FACW species x 2 = 140
Sapling/Shrub Stratum (Plot size: 15 )				0
1				FAC species $x^3 = $
2				FACU species $0   x 4 = 0$
				UPL species $0   x 5 = 0$
3				85 155
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =1.82
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	0	Total Covo	-	$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total access 0		= Total Cove	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )				
<sub>1.</sub> Packera aurea	20	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Impatiens capensis	15	Yes	FACW	
3. Ranunculus abortivus	15	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Carex prasina	15	Yes	OBL	Definitions of Four Vegetation Strata:
5. Viola cucullata	10	No	FACW	Deminions of Four Vegetation officia.
6. Solidago gigantea	10	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
b. Solidago gigantea	10	110	TACI	more in diameter at breast height (DBH), regardless of
7				height.
8				
				Sapling/Shrub – Woody plants, excluding vines, less
9		. <u></u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	85	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42.5		total cover:		
				Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes Vo No
50% of total cover: 0		total cover:	~	
		total cover.		
Remarks: (Include photo numbers here or on a separate s	heet.)			
1				

Depth         Matrix         Redox Features           0.4         7.5YR 3/2         95         7.5YR 5/6         5         C         PL/M         CL           4-10         7.5YR 4/2         95         7.5YR 5/6         5         C         PL/M         CL         rock at 10"           4-10         7.5YR 4/2         95         7.5YR 5/6         5         C         PL/M         C         rock at 10"	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
0.4         7.5YR 3/2         95         7.5YR 5/6         5         C         PL/M         CL           4.10         7.5YR 4/2         95         7.5YR 5/8         5         C         PL/M         C         rock at 10"	Depth	Matrix		Redo	x Feature	s				
4.10       7.5YR 4/2       95       7.5YR 5/8       5       C       PL/M       C       rock at 10"					-				Remarks	
**Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147, 148)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Histosol (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Histosol (A1)       Loarny Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       (MLRA 136, 147)         Stratified Layers (A5)       ✓ Redox Dark Surface (F6)       Very Shallow Dark Surface (T12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (T12)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Tock       Historial (F21) (MLRA 127, 147)       Historial (F21) (MLRA 127, 147)         Depth (inches):       10       Head Parent Material (F21) (MLRA 127, 147)       Head Parent Material (F21) (MLRA 127, 147)	0-4	7.5YR 3/2	95	7.5YR 5/6	5	С	PL/M	CL		
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	4-10	7.5YR 4/2	95	7.5YR 5/8	5	С	PL/M	С	rock at 10"	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :									·	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :							<u> </u>			
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :										
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :		·								
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :		·							·	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :				·						
Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)			etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.			
	Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :	
Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       ✓       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       rock       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Type:       10       Hydric Soil Present? Yes No       No		( )			· ,					
Hydrogen Sulfide (A4)      Loamy Gleyed Matrix (F2)      Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓Depleted Matrix (F3)       (MLRA 136, 147)        2 cm Muck (A10) (LRR N)       ✓Redox Dark Surface (F6)      Very Shallow Dark Surface (TF12)				·		· / ·		148) (		
Stratified Layers (A5)          ✓ Depleted Matrix (F3)        (MLRA 136, 147)          2 cm Muck (A10) (LRR N)          ✓ Redox Dark Surface (F6)        Very Shallow Dark Surface (TF12)          Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)        Other (Explain in Remarks)          Thick Dark Surface (A12)       Redox Depressions (F8)        Other (Explain in Remarks)          Sandy Mucky Mineral (S1) (LRR N, MLRA 136)       Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)        Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)          Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type: <u>rock</u> <u>vestication on the senterse in the sentesenterse in the senterse in the senterse in the senter</u>		( )			•		47, 148)	_		
2 cm Muck (A10) (LRR N)       ✓       Redox Dark Surface (F6)		( )				(F2)		I		
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       MLRA 147, 148)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:        rock         Type:       10       Hydric Soil Present?       Yes No		• • •			. ,	-0)		,		
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Restrictive Layer (if observed): Type:  Tock Depth (inches):  10 Hydric Soil Present? Yes  Yes  Yes  No			( 1 1 1 )			,			•	
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N, MLRA 136)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       rock         Depth (inches):       10       Hydric Soil Present? Yes Ves No			(ATT)							
MLRA 147, 148)       MLRA 136)		, ,								
Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type: rock       Hydric Soil Present? Yes Ves No		• • • • •	,			(i i 2) <b>(i</b>	,			
Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type: rock       Hydric Soil Present? Yes Ves No         Depth (inches): 10       No       No						(MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and	
Stripped Matrix (S6)      Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):					· · ·	•	• •			
Type:         rock           Depth (inches):         10           Hydric Soil Present? Yes No		. ,			•	. ,	•			
Depth (inches): 10         Hydric Soil Present?         Yes         No										
	Type: roo	ck								
	Depth (in	ches): <u>10</u>						Hydric Soi	il Present? Yes 🖌 No	
								1		



Photo 1 Wetland data point WPOA403e\_w facing northeast



Photo 2 Wetland data point WPOA403e\_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County:	Pocahontas County	Sampling Date: 5/26/2016	
Applicant/Owner: Dominion		State: WV		
Investigator(s):	Section, Tov	vnship, Range: <u>No PLSS in this are</u>		
Landform (hillslope, terrace, etc.): ridge saddle		cave, convex, none): <u>none</u>		
Subregion (LRR or MLRA): N Lat: 38.373476	694	Long: <u>-80.06247174</u>	Datum: WGS 1984	
Soil Map Unit Name:		NWI classif	fication: 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 signific	antly disturbed?	Are "Normal Circumstances"	' present? Yes 🖌 No	
Are Vegetation, Soil, or Hydrology natural	lly problematic?	(If needed, explain any answ	vers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	ving sampling	point locations, transect	s, important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken adjacent to a	saturated PEM	wetland located in a r	network of depressions and r	uts.	

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 Se	oils (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 <u>/</u> Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
	tions), if available:
	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:

Sampling Point: wpoa403\_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?	Status	Number of Dominant Species
<sub>1.</sub> Acer saccharum	20	Yes	FACU	That Are OBL, FACW, or FAC: $5$ (A)
2. Tsuga canadensis	15	Yes	FACU	
3. Betula alleghaniensis	10	Yes	FAC	Total Number of Dominant
				Species Across All Strata: 12 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>41.666666666</u> (A/B)
6				Drevelance in dev werkelsest
7				Prevalence Index worksheet:
	45	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 22.5	20% of	total cover:	9	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =90
1. Crataegus viridis	10	Yes	FACW	FAC species $10 \times 3 = 30$
2. Acer pensylvanicum	6	Yes	FACU	FACU species $82 \times 4 = 328$
3. Acer saccharum	6	Yes	FACU	UPL species $0 \times 5 = 0$
		103	1700	137 ///8
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =3.27
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9	22			3 - Prevalence Index is ≤3.0 <sup>1</sup>
11		= Total Cove	r 4.4	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:1	20% of	total cover:	7.7	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Impatiens capensis	15	Yes	FACW	
<sub>2.</sub> Barbarea vulgaris	15	Yes	FACU	
3. Solidago gigantea	10	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Galium aparine	10	Yes	FACU	be present, unless disturbed or problematic.
5. Poa trivialis	10	Yes	FACW	Definitions of Four Vegetation Strata:
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Rumex obtusifolius	10	Yes	FACU	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				
11	70	<b>T</b> ( ) O		Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 35		= Total Cove		of size, and woody plants less than 3.28 ft tall.
	20% of	total cover:	14	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4				
5.				Hydrophytic Vegetation
	0	Tatal Oscilla		Present? Yes No V
50% of total cover: 0		= Total Cove total cover:		·····
		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the depth	n needed to docur	nent the ir	ndicator	or confirm	the absence	e of indicato	ors.)	
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-3	7.5YR 3/2	100					L			
3-9	7.5YR 3/3	100					CL			
9-18	7.5YR 3/4	100					CL			
			<u> </u>							
			<u> </u>							
			<u> </u>							
<sup>1</sup> Turne: C-C	oncentration, D=Depl		Poducod Motrix M	-Maakad	Sond Cr	ine	<sup>2</sup> Logation:		ng, M=Matrix.	
Hydric Soil					Sanu Gra	aii 15.			oblematic Hydric Soils <sup>3</sup> :	
Histosol			Dark Surface	(97)					A10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be	· · ·	o (S9) /N				Redox (A16)	
	istic (A3)		Thin Dark Su				140)	(MLRA 14	( )	
	en Sulfide (A4)		Loamy Gleye	· ,	•	47, 140)		•	odplain Soils (F19)	
	d Lavers (A5)		Depleted Ma		2)		'	(MLRA 13)		
	uck (A10) <b>(LRR N)</b>		Redox Dark	( )	6)		,	•	Dark Surface (TF12)	
	d Below Dark Surface	(11)	Depleted Dark	· ·	,			•	in in Remarks)	
·	ark Surface (A12)	(ATT)	Redox Depre		. ,				in in itemarks)	
	Aucky Mineral (S1) (L		Iron-Mangan	•						
-		KK N,	-		5 (F12) <b>(</b> 1	LKK N,				
	A 147, 148)		MLRA 13			c 400)	31	l'antona af hu	when he die operatedie en en el	
	Gleyed Matrix (S4)		Umbric Surfa						/drophytic vegetation and	
	Redox (S5)		Piedmont Flo	•	, ,	•	•	•	logy must be present,	
	d Matrix (S6) Layer (if observed):		Red Parent N	/laterial (F2	21) (MLR.	A 127, 147	) ur	ness disturde	ed or problematic.	
Type: no										
	ches):						Hydric Soi	I Present?	Yes No 🖌	
Remarks:										
. contanto.										



Photo 1 Upland data point WPOA403\_u facing northeast



Photo 2 Upland data point WPOA403\_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: F	Pocahontas County	_ Sampling Date: 6/2/2016			
Applicant/Owner: Dominion		State: WV				
Investigator(s): GB, KO	Section, Towr	_ Section, Township, Range: No PLSS in this area				
Landform (hillslope, terrace, etc.): minor drav		ave, convex, none): <u>concave</u>				
Subregion (LRR or MLRA): <u>N</u>	Lat: <u>-80.08088089</u>	Long: <u>38.38234607</u>	Datum: WGS 1984			
Soil Map Unit Name:		NWI classifi	ication: PEM			
Are climatic / hydrologic conditions on the site	e typical for this time of year? Yes	No (If no, explain in I	Remarks.)			
Are Vegetation, Soil, or Hydro	logy significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No			
Are Vegetation, Soil, or Hydro	logy naturally problematic?	(If needed, explain any answ	ers in Remarks.)			
SUMMARY OF FINDINGS – Attack	n site map showing sampling	point locations, transect	s, important features, etc.			

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:							

Saturated PEM seep wetland in a minor draw; seep source well outside proposed access road corridor; on either side of existing road and connected via 18" corrugated metal culvert; NCWAM key = seep

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Saturation (A3)</li> <li>Oxidized Rhizospheres on Living I</li> <li>Water Marks (B1)</li> <li>Presence of Reduced Iron (C4)</li> <li>Sediment Deposits (B2)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> </ul>	
Aquatic Fauna (B13) Field Observations:	✓ FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches):	
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: wpoa413e\_w

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
1, none	0			Number of Dominant Species         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			0	OBL species x 1 =15
15	20% 0	total cover:		05 =0
Sapling/Shrub Stratum (Plot size:)				FACW species $25$ $x = 50$
1. none	0			FAC species $x_3 = $
2				FACU species $0   x 4 = 0$
2				UPL species $0 \times 5 = 0$
3		·		60 125
4				Column Totals: (A) (B)
5				0.00
				Prevalence Index = $B/A = 2.08$
6		·		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
		·		✓ 2 - Dominance Test is >50%
9				$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 0	20% of	total cover:	0	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
1. Ranunculus acris	15	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		·		
2. Glyceria striata	15	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
<sub>3.</sub> Viola cucullata	10	No	FACW	be present, unless disturbed or problematic.
4. Poa sylvestris	10	No	FACW	
5. Impatiens capensis	5			Definitions of Four Vegetation Strata:
		No	FACW	$\mathbf{T}_{\text{resc}}$ (M) and $\mathbf{r}_{\text{resc}}$ (and $\mathbf{r}_{\text{resc}}$ ) and (7.0 mm) and
6. Laportea canadensis	5	No	FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				more in diameter at breast height (DBH), regardless of height.
··				noight.
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11	60	·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 30	20% of	total cover:	12	Weedy vine All weedy vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
	0			
··· <u>·</u> ·····		·		
2				
3				
4				
				Hydrophytic
5		·		Vegetation Present? Yes <u>Ves</u> No <u>No</u>
	0	= Total Cover		Present? Yes Vo No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet )			
	1000.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redo	x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-4	5YR 3/1	100					SIL			
4-18	5YR 4/1	90	5YR 4/6	10	С	PL/M	SICL			
							·			
						<u> </u>	·			
						<u> </u>				
							·			
	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Maskec	d Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lir			
Hydric Soil	Indicators:						Indicators for F	Problematic Hydric Soils <sup>3</sup> :		
Histoso			Dark Surface	· · ·				(A10) <b>(MLRA 147)</b>		
Histic E	pipedon (A2)		Polyvalue Be		· / ·		148) Coast Prairi	e Redox (A16)		
	istic (A3)		Thin Dark Su	. ,		47, 148)	(MLRA 1			
	en Sulfide (A4)		Loamy Gleye		(F2)			loodplain Soils (F19)		
	d Layers (A5)		Depleted Mar	. ,			(MLRA 136, 147)			
	uck (A10) <b>(LRR N)</b>		Redox Dark					w Dark Surface (TF12)		
	d Below Dark Surface	(A11)	Depleted Dar				Other (Expla	ain in Remarks)		
	ark Surface (A12)		Redox Depre							
	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(</b> I	_RR N,				
	A 147, 148)		MLRA 13			0 400)	31			
	Gleyed Matrix (S4)		Umbric Surfa		•			hydrophytic vegetation and		
	Redox (S5)		Piedmont Flo	•	. ,	•		ology must be present, bed or problematic.		
	d Matrix (S6) Layer (if observed):		Red Parent N	naterial (F		A 1 <i>21</i> , 147	) uniess disturi	Sed of problematic.		
Type: nc	ne									
Depth (in	ches):						Hydric Soil Present?	Yes 🥙 No		
Remarks:										



Wetland data point WPOA413e\_w facing north



Wetland data point WPOA413e\_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Pocaho	ontas County	Sampling Date: 6/2/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa413_u
Investigator(s): GB, KO	Section, Township, F	Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): slope	Local relief (concave, co		Slope (%): <u>15</u>
Subregion (LRR or MLRA): N Lat: -80.	.08095874 L	ong: <u>38.38235832</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classific	cation: UPLAND
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes <u></u> No	(If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrologys	significantly disturbed? Ar	e "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology r	naturally problematic? (If	needed, explain any answe	ers in Remarks.)
			• • • • • •

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	ン ン ン	Is the Sampled Area within a Wetland?	Yes	No	×
Remarks: Upland data point taken on slope above	a saturated PE	M seer	o wetland loca	ated in a minor draw.			
- France							

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; c	heck all that apply)	Surface Soil Cracks (B6)		
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Drainage Patterns (B10)			
Saturation (A3)	Roots (C3) Moss Trim Lines (B16)			
Water Marks (B1)	Dry-Season Water Table (C2)			
Sediment Deposits (B2)	oils (C6) Crayfish Burrows (C8)			
Drift Deposits (B3)	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 (includes capillary fringe)	Saturation Present? Yes No 🖌 Depth (inches): Wetland			
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspec	tions), if available:		
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		
Remarks:	ng well, aerial photos, previous inspec	tions), if available:		

Sampling Point: wpoa413\_u

,	Absolute	Dominant Ir	diaatar	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )			Status	
Acer saccharum	30	Yes	FACU	Number of Dominant Species         That Are OBL, FACW, or FAC:         3         (A)
2. Betula alleghaniensis	15	Yes	FAC	
3. Fagus grandifolia	15	Yes	FACU	Total Number of Dominant
	15	Yes	FACU	Species Across All Strata: 9 (B)
4. Prunus serotina	15	163	TACO	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>33.33333333</u> (A/B)
6				
7				Prevalence Index worksheet:
	75	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: <u>37.5</u>		total cover:	15	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =0
1. Fagus grandifolia	15	Yes	FACU	FAC species 31 x 3 = 93
2. Acer pensylvanicum	7	Yes	FACU	FACU species $92 \times 4 = 368$
				0 0
3. <u>Betula alleghaniensis</u>	5	No	FAC	UPL species $x 5 = {461}$
4. Acer saccharum	2	No	FACU	Column Totals: (A) (B)
5				Prevalence Index $= B/A = 3.74$
6				
7		·		Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9	29	·	<u> </u>	3 - Prevalence Index is $\leq 3.0^1$
14 5		= Total Cover	5.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:14.5	20% of	total cover:	5.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Anemone quinquefolia	5	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<sub>2.</sub> Viola rotundifolia	4	Yes	FAC	
3. Carex blanda	4	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Allium tricoccum	3	No	FACU	be present, unless disturbed or problematic.
5. Dryopteris carthusiana	3	No	FAC	Definitions of Four Vegetation Strata:
		·	T AC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		·		more in diameter at breast height (DBH), regardless of
7				height.
8				Conting (Chruch Weatherstein auch die gewinnen Jaco
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.		·		
	19			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 9.5		= Total Cover total cover:		or size, and woody plants less than 5.20 it tall.
	20% 01	total cover:	0.0	Woody vine – All woody vines greater than 3.28 ft in
	0			height.
1. <u>none</u>	0	·		
2				
3				
4				
		·		Hydrophytic
5	-	Terric		Vegetation Present? Yes No V
50% of total cover: 0		= Total Cover		
		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Desc	cription: (Describe t	o the depth	needed to docur	nent the i	ndicator o	or confirm	the absenc	e of indicato	rs.)	
Depth	Matrix		Redo	x Features	8					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-2	5YR 2.5/2	100					L			
2-10	5YR 3/3	100					SCL			
10-18	5YR 3/4	100					SCL			
								_		
	oncentration, D=Depl	ation RM-R	Peduced Matrix M	-Maskod	Sand Gra	ains	<sup>2</sup> Location:	PI – Pore Linii	ng, M=Matrix.	
Hydric Soil					Cana Ora				oblematic Hy	dric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface					2 cm Muck (A	10) <b>(MLRA 1</b>	
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie		
	istic (A3)		Thin Dark Su			47, 148)		(MLRA 14	· •	
	en Sulfide (A4)		Loamy Gleye		F2)				odplain Soils	(F19)
	d Layers (A5)		Depleted Ma	. ,				(MLRA 13	•	
	uck (A10) <b>(LRR N)</b>	( )	Redox Dark	•	,			•	Dark Surface	· ,
·	d Below Dark Surface	(A11)	Depleted Dar		. ,			Other (Explai	n in Remarks)	)
	ark Surface (A12)		Redox Depre							
	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(</b>	_RR N,				
	A 147, 148)		MLRA 13			C 400)	31	diantana af hu	drophytic veg	atation and
-	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa	· / ·				•	ogy must be p	
	Matrix (S6)		Red Parent N					•	ed or problem	
	Layer (if observed):					A 127, 147	) u			
Type: no										
Depth (in	ches):						Hydric So	il Present?	Yes	No <u>′</u>
Remarks:										



Upland data point WPOA413\_u facing southwest



Upland data point WPOA413\_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: F	Pocahontas County	_ Sampling Date: 6/2/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa414e_w
Investigator(s): GB, KO	Section, Towr	nship, Range: <u>No PLSS in this are</u>	ea
Landform (hillslope, terrace, etc.): ditch		ave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: -80.082	3806	Long: <u>38.38271366</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classif	ication: PEM
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes 🗹	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology signif	ficantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natur	ally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling	point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:						

Saturated PEM seep wetland located in a ditch along existing gravel road; hydrology from seep ppoa422 at nick point in ditch and ppoa423 located on road cut above ditch; outflow passes through two 18" corrugated metal culverts; there is no wetlands or streams below culvert outlets; NCWAM key = seep.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       Ves       ✓       No       Depth (inches):       0	Wetland Hydrology Present? Yes <u>V</u> No
Saturation Present? Yes <u>&lt;</u> No <u>Depth (inches)</u>	

Sampling Point: wpoa414e\_w

, , ,	Abaabata	-	P t	Deminence Test werkelset
Tree Stratum (Plot size: 30 )	Absolute	Dominant Ir		Dominance Test worksheet:
		Species?	Status	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: 3 (B)
4				Demonst of Dominant Spacing
5				Percent of Dominant Species
0				That Are OBL, FACW, or FAC:(A/B)
6				
7				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
	0	= Total Cover		
50% of total cover: 0	20% of	total cover:	0	OBL species X 1 = 35
	20 % 01	total cover.		05 -0
Sapling/Shrub Stratum (Plot size:)				FAC W species $x = $
none	0			FAC species $20$ x 3 = $60$
1	0			
2				FACU species $0 x 4 = 0$
				UPL species $0   x 5 = 0$
3				80 145
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =1.81
6				Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8				<ul> <li>2 - Dominance Test is &gt;50%</li> </ul>
9.				
<sup>9.</sup>	0			$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cover	•	4 Marphalagical Adaptations <sup>1</sup> (Dravide aupporting
50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	2070.01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )				
1. Ranunculus acris	20	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<sub>2.</sub> Glyceria striata	15	Yes	OBL	
3. Impatiens capensis	15	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	15	165	TACW	be present, unless disturbed or problematic.
4. Carex prasina	10	No	OBL	
	10			Definitions of Four Vegetation Strata:
5. Carex gynandra	10	No	OBL	
6. Viola cucullata	5	No	FACW	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
		110	TAON	more in diameter at breast height (DBH), regardless of
7 Lysimachia nummularia	5	No	FACW	height.
				hoight
8				Sapling/Shrub Weady plants evaluding vince loss
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
ö	-			than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
11				Herb – All herbaceous (non-woody) plants, regardless
	80	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40	20% of	total cover:	16	
	20 /8 01			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. none	0			
		<u> </u>		
2				
3				
4				Hydrophytic
				Vegetation
4			 	
4 5	0	= Total Cover		Vegetation
4	0			Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation
4 5 50% of total cover:0	0 20% of	= Total Cover		Vegetation

Profile Desc	cription: (Describe to	o the dep	th needed to docu	ment the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	5YR 4/2	97	5YR 4/6	3	С	PL/M	SICL	rock at 10"
·								
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil			,					ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2	2 cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	pipedon (A2)		Polyvalue Be	elow Surfac	ce (S8) <b>(N</b>	ILRA 147,	148) (	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	urface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
🖌 Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		F	Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)			/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		(	Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F8	3)			
Sandy N	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(</b>	MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Florence	odplain So	oils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
	l Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	) ur	nless disturbed or problematic.
	Layer (if observed):							
Type: roo								
	ches): <u>10</u>						Hydric Soi	I Present? Yes <u>V</u> No
Remarks:								



Wetland data point WPOA414e\_w facing east



Wetland data point WPOA414e\_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County:	Pocahontas County	_ Sampling Date: 6/2/2016				
Applicant/Owner:		State: WV					
Investigator(s): GB, KO	Section, Tow	nship, Range: <u>No PLSS in this are</u>					
Landform (hillslope, terrace, etc.): <u>slope</u>		cave, convex, none): <u>none</u>	•				
Subregion (LRR or MLRA): N Lat: -80.0825	1069	Long: <u>38.38270827</u>	Datum: WGS 1984				
Soil Map Unit Name:		NWI classif	fication: UPLAND				
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	No (If no, explain in	Remarks.)				
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances"	' present? Yes 🖌 No				
Are Vegetation, Soil, or Hydrology natura	ally problematic?	(If needed, explain any answ	vers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	ン ン ン	Is the Sampled Area within a Wetland?	Yes	No	<u>~</u>
Remarks:							
Upland data point taken on a gentle slope above a saturated PEM seep wetland located in a ditch along existing gravel road.							

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 Sc	pils (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
	, , ,
Saturation Present? Yes No Concern Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	, , ,

Sampling Point: wpoa414\_u

, ,	Absolute	Dominant Ir	diaatar	Dominanaa Taat warkabaati
Tree Stratum (Plot size: <u>30</u> )		Dominant Ir Species?	Status	Dominance Test worksheet:
	25	Yes	FACU	Number of Dominant Species That Are OBL EACW or EAC: $1$ (A)
	20	Yes	FACU	That Are OBL, FACW, or FAC: (A)
2. Acer saccharum				Total Number of Dominant
3. Betula alleghaniensis	10	No	FAC	Species Across All Strata: 7 (B)
4. Prunus serotina	10	No	FACU	
5. Fraxinus pennsylvanica	5	No	FACW	Percent of Dominant Species
				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7	70	<u> </u>	<u> </u>	Total % Cover of: Multiply by:
	:	= Total Cover		
50% of total cover: 35	20% of	total cover:	14	OBL species $x_1 = \frac{1}{2}$
Sapling/Shrub Stratum (Plot size:15)				FACW species $5   x^2 = 10$
1. Fagus grandifolia	12	Yes	FACU	FAC species x 3 = 81
2. Acer pensylvanicum	6	Yes	FACU	FACU species x 4 = 360
3. Betula alleghaniensis	6	Yes	FAC	UPL species $0 \times 5 = 0$
	2			122 /51
4. Acer saccharum		No	FACU	Column Totals: (A) (B)
5				Prevalence Index = $B/A = 3.69$
6				
_				Hydrophytic Vegetation Indicators:
7		·		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
	26	= Total Cover		
50% of total cover: 13	20% of	total cover:	5.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Podophyllum peltatum	15	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
••	10	Yes	17.00	
2. Stellaria pubera				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Carex amphibola	7	No	FAC	be present, unless disturbed or problematic.
<sub>4.</sub> Dryopteris carthusiana	4	No	FAC	Definitions of Four Vegetation Strata:
5				Deminions of Four Vegetation Strata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6			<u> </u>	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	36		<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
10		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>18</u>	20% of	total cover:	1.2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. none	0			
2.				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No V
50% of total cover: 0		total cover:	~	
Remarks: (Include photo numbers here or on a separate s		-		
Remarks. (include photo numbers here of on a separate s	neet.)			

Profile Desc	cription: (Describe t	o the de	pth needed to docur	nent the	indicator of	or confirm	the absence of in	dicato	rs.)
Depth	Matrix			x Feature					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-3	5YR 3/2	100					CL		
3-15	5YR 3/3	100					SL		
15-20	5YR 4/2	95	5YR 4/4	5	С	М	SL		
					·				
<sup>1</sup> Tvpe: C=C	oncentration, D=Depl	etion. RM	I=Reduced Matrix. M	S=Maske	d Sand Gra	ains.	<sup>2</sup> Location: PL=Po	re Linir	ng. M=Matrix.
Hydric Soil			, , , ,						oblematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	e (S7)			2 cm N	/luck (A	(10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be	. ,	ace (S8) <b>(N</b>	ILRA 147.		•	Redox (A16)
	istic (A3)		Thin Dark Su		· / ·		·	RA 147	
	en Sulfide (A4)		Loamy Gleye	•	, <b>.</b>	, <b>,</b>	•		odplain Soils (F19)
	d Layers (A5)		Depleted Ma		· · /			RA 136	• • • •
	uck (A10) (LRR N)		Redox Dark	• •	F6)		•		Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Da	rk Surface	, (F7)		Other	(Explair	n in Remarks)
	ark Surface (A12)	( )	Redox Depre						,
Sandy N	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	ses (F12) <b>(</b> I	LRR N,			
-	A 147, 148)		MLRA 13		· / ·				
	Gleyed Matrix (S4)		Umbric Surfa	, ice (F13)	(MLRA 13	6, 122)	<sup>3</sup> Indicato	rs of hy	drophytic vegetation and
-	Redox (S5)		Piedmont Flo						ogy must be present,
Stripped	d Matrix (S6)		Red Parent M	Material (F	21) (MLR	A 127, 147	') unless o	listurbe	ed or problematic.
	Layer (if observed):								
Type: no	one								
Depth (in	ches):						Hydric Soil Pres	ent?	Yes No
Remarks:									



Upland data point WPOA414\_u facing south



Upland data point WPOA414\_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Pocahontas County	Sampling Date: 6/1/2016
Applicant/Owner: Dominion	Sta	te: <u>WV</u> Sampling Point: <u>wpoa410e_w</u>
Investigator(s): GB, KO	_ Section, Township, Range: No PLSS	in this area
Landform (hillslope, terrace, etc.): minor draw	ocal relief (concave, convex, none): <u>C</u>	_
Subregion (LRR or MLRA): N Lat: -80.07692445	5 Long: <u>38.375765</u>	507 Datum: WGS 1984
Soil Map Unit Name:	1	NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circu	mstances" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain	n any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations,	ransects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:			-			

Saturated PEM seep wetland located in two minor draws; one draw contains ephemeral stream spoa422; severely trampled by livestock; NCWAM key = seep; source seep is located well outside proposed access road corridor.

Wetland Hydrology Indicato	'S:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum c	f one is required; chec	k 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)
<ul> <li>Saturation (A3)</li> </ul>		Oxidized Rhizospheres on Living F	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 So	ils (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 Aeri	al Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B9	ə)			Microtopographic Relief (D4)
Aquatic Fauna (B13)				<ul> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:				
Surface Water Present?	Yes No 🔽	Depth (inches):		
Water Table Present?	Yes No 🖌	Depth (inches):		
Saturation Present?	Yes 🖌 No		Wetland H	Hydrology Present? Yes 🖌 No
(includes capillary fringe)				
Describe Recorded Data (strea	am gauge, monitoring v	well, aerial photos, previous inspect	ions), if ava	(Ilable:
Remarks:				
Remarks.				

Sampling Point: wpoa410e\_w

. ,	Abaaluta	- Daminant li		Deminence Test werkehest
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant In Species?		Dominance Test worksheet:
Fraxinus pennsylvanica	5	Yes	FACW	Number of Dominant Species
1. 1 axinus perinsylvanica		103		That Are OBL, FACW, or FAC: (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 4 (B)
4		·		Percent of Dominant Species
5		. <u> </u>		That Are OBL, FACW, or FAC: 100 (A/B)
6				
		·		Prevalence Index worksheet:
7	5	·		Total % Cover of: Multiply by:
		= Total Cove		
50% of total cover: 2.5	20% of	total cover:	1	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species53 x 2 =106
Crotocque viridio	8	Yes	FACW	FAC species $0   x 3 = 0$
			17.011	E 20
2		. <u> </u>		FACU species $x 4 = $
3				UPL species         x 5 =
				Column Totals: 58 (A) 126 (B)
4			<u> </u>	
5		. <u> </u>		Prevalence Index = B/A =2.17
6				
				Hydrophytic Vegetation Indicators:
7		·		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
0	8			$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
4		= Total Cove	1.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 4	20% of	total cover:	1.0	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1. Impatiens capensis	20	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	10			
2. Poa palustris		Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Rumex obtusifolius	5	No	FACU	be present, unless disturbed or problematic.
4. Ranunculus abortivus	5	No	FACW	
5. Viola cucullata	5	No	FACW	Definitions of Four Vegetation Strata:
o			17.011	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.				
	45			Herb – All herbaceous (non-woody) plants, regardless
20.4		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 22.5	20% of	total cover:	9	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1 none	0			
		·		
2		·		
3				
4.				
		·		Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sneet.)			
1				

	scription: (Describe	to the de	-			or confirm	the absence of i	ndicators.)		
Depth	Matrix	%		x Feature	Type <sup>1</sup>	Loc <sup>2</sup>	Tautura	Damarka		
(inches) 0-3	Color (moist) 5YR 3/2	<u>%</u>	Color (moist)	%	Type	LOC	Texture	Remarks		
3-8	5YR 4/2	100					SICL			
8-18	5YR 5/2	95	5YR 4/6	5	С	PL/M	SIC			
I		<u> </u>		. <u> </u>	. <u></u>					
					. <u>.</u>					
					<u></u>					
					<u></u>					
<sup>1</sup> Type: C=0	Concentration, D=Dep	letion, RM	I=Reduced Matrix, M	S=Maske	d Sand Gra	ains.	<sup>2</sup> Location: PL=P	ore Lining, M=Matrix.		
	I Indicators:		,					s for Problematic Hydric Soils <sup>3</sup> :		
Histos	ol (A1)		Dark Surface	e (S7)			2 cm	Muck (A10) <b>(MLRA 147)</b>		
	Epipedon (A2)		Polyvalue Be	· · /	ace (S8) <b>(N</b>	ILRA 147,		t Prairie Redox (A16)		
	Histic (A3)		Thin Dark Su					LRA 147, 148)		
Hydrog	gen Sulfide (A4)		Loamy Gleye				•	nont Floodplain Soils (F19)		
	ed Layers (A5)		Depleted Ma		· /			LRA 136, 147)		
	/luck (A10) (LRR N)		Redox Dark	• •	F6)		•	Shallow Dark Surface (TF12)		
	ed Below Dark Surfac	e (A11)	Depleted Da	,	,		Other (Explain in Remarks)			
Thick [	Dark Surface (A12)	. ,	Redox Depre	essions (F	8)					
	Mucky Mineral (S1) (	LRR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b>	LRR N,				
-	RA 147, 148)		MLRA 13		( ) <b>(</b>					
	Gleyed Matrix (S4)		Umbric Surfa	•	(MLRA 13	6, 122)	<sup>3</sup> Indicate	ors of hydrophytic vegetation and		
-	Redox (S5)		Piedmont Flo				8) wetlan	d hydrology must be present,		
Strippe	ed Matrix (S6)		Red Parent I	Material (F	21) (MLR	A 127, 147	') unless	disturbed or problematic.		
Restrictive	Layer (if observed)									
Type: s								_		
Depth (i	nches): <u>8</u>		<u> </u>				Hydric Soil Pre	sent? Yes 🖌 No		
Remarks:										
I										



Wetland data point WPOA410e\_w facing west



Wetland data point WPOA410e\_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Por	cahontas County	Sampling Date: 6/1/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa410_u
Investigator(s): GB, KO	Section, Townsh	nip, Range: <u>No PLSS in this are</u>	
Landform (hillslope, terrace, etc.): <u>slope</u>		e, convex, none): <u>none</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): N Lat: -80.0	07691914	Long: <u>38.37581916</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classifi	cation: UPLAND
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrologysi	gnificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answe	ers in Remarks.)
		• • • • • •	• • • • • •

# SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on a slope abo	ove a saturated	PEM seep wetland lo	cated in a minor draw.		

### HYDROLOGY

I

	Secondary Indicators (minimum of two required)
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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> </ul>
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 🔽 Depth (inches):	
Saturation Present? Yes No <u>V</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No

I

Sampling Point: wpoa410\_u

,	Absolute	Dominant Ir	diaatar	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )			Status	Dominance Test worksheet:
Acer saccharum	25	Yes	FACU	Number of Dominant Species         That Are OBL, FACW, or FAC:         1         (A)
2. Quercus rubra	20	Yes	FACU	
	15	Yes	FACU	Total Number of Dominant
3. Fagus grandifolia	5		FAC	Species Across All Strata: 9 (B)
4. Betula alleghaniensis	5	No	FAC	Percent of Dominant Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 11.11111111 (A/B)
6				
7		·		Prevalence Index worksheet:
/	65			Total % Cover of: Multiply by:
500% of total accuracy 32.5		= Total Cover	13	OBL species 0 x 1 = 0
50% of total cover: <u>32.5</u>	20% 01	total cover:	10	1 0
Sapling/Shrub Stratum (Plot size:)				FACW species $4   x^2 = 8$
1. Fagus grandifolia	8	Yes	FACU	FAC species $x_3 = $
<sub>2.</sub> Betula alleghaniensis	5	Yes	FAC	FACU species $x 4 =$
3. Crataegus viridis	4	No	FACW	UPL species $0   x 5 = 0$
4. Acer saccharum	4	No	FACU	Column Totals:(A)(A)(B)
	3			
5. Quercus rubra	3	No	FACU	Prevalence Index = B/A =3.8
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
		·		2 - Dominance Test is >50%
9	24	·		3 - Prevalence Index is ≤3.0 <sup>1</sup>
10		= Total Cover	4.8	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:12	20% of	total cover:	4.0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
<sub>1.</sub> Luzula multiflora	7	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Anthoxanthum odoratum	5	Yes	FACU	
3. Anemone quinquefolia	5	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	5	·	17100	be present, unless disturbed or problematic.
4. <u>Stellaria pubera</u>		Yes		Definitions of Four Vegetation Strata:
5. Viola canadensis	3	No	FAC	
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				lioigitti
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9		·	<u> </u>	than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·		m) tall.
11		<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	25	= Total Cover	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 12.5		total cover:		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
	0			height.
1. <u>1011</u>		·	<u> </u>	
2				
3				
4				The described in
5				Hydrophytic Vegetation
·	-	Terric		Present? Yes <u>No</u>
50% of total cover: 0		= Total Cover		
		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Desc	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence of	indicato	rs.)		
Depth	Matrix		Redo	x Features	6						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-2	5YR 2.5/2	100					L				
2-10	5YR 3/3	100					L				
10-18	5YR 3/4	100					SCL				
				<u> </u>							
			·								
				<u> </u>							
1 <del></del>							<sup>2</sup>	Dens Lini	M. Martela		
Hydric Soil	oncentration, D=Depl	etion, RIVI=	Reduced Matrix, Ma	s=IVIasked	Sand Gra	ains.	<sup>2</sup> Location: PL=		oblematic H		
-				(0-)							
Histosol	. ,		Dark Surface	( )	(0.0) (1)				(10) (MLRA 1	•	
	pipedon (A2)		Polyvalue Be		· / ·		·		Redox (A16)		
	istic (A3)		Thin Dark Su	. ,	•	47, 148)	•	MLRA 14		( <b>—</b> ) = )	
	en Sulfide (A4)		Loamy Gleye	,	F2)				odplain Soils	(F19)	
	d Layers (A5)		Depleted Ma	• •			•	MLRA 13	•		
	uck (A10) <b>(LRR N)</b>		Redox Dark	· ·	,		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
-	d Below Dark Surface	e (A11)	Depleted Date				Oth	er (Explai	n in Remarks	)	
	ark Surface (A12)		Redox Depre	,	,						
-	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan		es (F12) <b>(</b> I	LRR N,					
	A 147, 148)		MLRA 13				2				
	Gleyed Matrix (S4)		Umbric Surfa						drophytic veg		
	Redox (S5)		Piedmont Flo	•	. ,	•	•	•	ogy must be		
	d Matrix (S6)		Red Parent N	Aaterial (F	21) <b>(MLR</b>	A 127, 147	') unles	s disturbe	ed or problem	atic.	
	Layer (if observed):										
Type: <u>no</u>	one										
Depth (in	ches):						Hydric Soil P	resent?	Yes	No	
Remarks:											



Upland data point WPOA410\_u facing northeast



Upland data point WPOA410\_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Po	cahontas County	Sampling Date: 6/2/2016		
Applicant/Owner: Dominion			State: WV	Sampling Point: wpoa411e_w	
Investigator(s): GB, KO		Section, Townsh	hip, Range: <u>No PLSS in this are</u>	a	
Landform (hillslope, terrace, etc.): dra	aw	Local relief (concav	ve, convex, none): <u>concave</u>	Slope (%): <u>4</u>	
Subregion (LRR or MLRA): <u>N</u>	Lat: <u>-80.0775</u>	382	Long: <u>38.37775821</u>	Datum: WGS 1984	
Soil Map Unit Name:			NWI classif	ication: PEM	
Are climatic / hydrologic conditions or	the site typical for this time	e of year? Yes 🔽	No (If no, explain in i	Remarks.)	
Are Vegetation, Soil,	or Hydrology signifi	cantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No	
Are Vegetation, Soil,	or Hydrology natura	ally problematic?	(If needed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS -	Attach site map sho	wing sampling p	oint locations, transect	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🖌 No	la tha Qa			

Hydrophytic Vegetation Present?	Yes _	~	No	Is the Sampled Area			
Hydric Soil Present?	Yes	~	No	within a Wetland?	Yes	~	Νο
Wetland Hydrology Present?	Yes	~	No	Willing a Wolland			
Remarks:							
Optimated DEM as an unattend to actual in			at a transmission of the transmission of the	and the second sec			and a second

Saturated PEM seep wetland located in a draw; seep origin well outside proposed access road corridor; intermittent stream spoa425 originates within this wetland and flows through it; wetland on either side of road connected by 24" corrugated metal culvert.

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 (C	I) <u>V</u> 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 T	illed 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 <u>&lt;</u> No <u>Depth</u> (inches): <u>5</u>	_
Saturation Present? Yes <u>/</u> No Depth (inches):0	Wetland Hydrology Present? Yes 🖌 No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	inspections), if available:
Remarks:	
Neniaiks.	

Sampling Point: wpoa411e\_w

, , ,	Abaaluta	Deminent l		Deminence Test worksheet:
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant In Species?		Dominance Test worksheet:
1. none	0		Olalao	Number of Dominant Species That Are OBL EACW or EAC: $3$ (A)
		·		That Are OBL, FACW, or FAC:3 (A)
2		·		Total Number of Dominant
3		<u> </u>		Species Across All Strata:4 (B)
4				
		·		Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC:75 (A/B)
6		·		Prevalence Index worksheet:
7				
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0		total cover:	0	OBL species X 1 = 35
Sapling/Shrub Stratum (Plot size: 15 )				FACW species21 x 2 =42
	4	Vaa	FAC	FAC species $28$ x 3 = $84$
1. Betula alleghaniensis		Yes		
2. Picea rubens	2	Yes	FACU	FACU species $X 4 = $
3				UPL species x 5 =0
		- <u></u> -		Column Totals: (A) (B)
4		·		
5				Prevalence Index = $B/A = 1.96$
6		<u></u>		
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8		·		✓ 2 - Dominance Test is >50%
9				$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	6	= Total Cove	r	
50% of total cover: <sup>3</sup>		f total cover:	1.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
1. Carex gynandra	25	Vaa	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		Yes		
2. Impatiens capensis	15	Yes	FACW	
<sub>3.</sub> Monarda didyma	12	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Ranunculus acris	12	No	FAC	be present, unless disturbed or problematic.
	10			Definitions of Four Vegetation Strata:
5. <u>Glyceria striata</u>		No	OBL	Tree Meadu plante queludine viene 2 in (7.0 pm) en
6. Viola cucullata	6	No	FACW	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
		- <u></u> -		holgha
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.				
	80	= Total Cove		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40		f total cover:		
	20% 0	total cover:	10	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. none	0			
2.				
		·		
3		·		
4		·		Hydrophytic
5				Vegetation
	-	= Total Cove	r	Present? Yes <u>V</u> No
50% of total cover: 0		f total cover:		
		total cover.		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Des	cription: (Describe t	o the dep	oth needed to docur	nent the	indicator of	or confirm	the absence	e of indicators.)
Depth	Matrix			x Feature	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	5YR 3/2	100					SICL	
6-13	5YR 4/2	95	5YR 4/6	5	С	PL/M	SICL	rock at 13"
		·			·			
							-	
1							2	- <u></u>
	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils <sup>3</sup> :
Hydric Soil				(07)				
Histoso	· · ·		Dark Surface	· · ·	· · · · (CO) /N			2 cm Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2) istic (A3)		Polyvalue Be		• • •		146)	Coast Prairie Redox (A16) (MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		, <b>.</b>	47, 140)	c	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma		(1 2)		'	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	. ,	-6)		١	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar					Other (Explain in Remarks)
·	ark Surface (A12)	· /	Redox Depre					, , , , , , , , , , , , , , , , , , ,
Sandy N	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy 0	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	<sup>3</sup> Inc	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	8) we	etland hydrology must be present,
	d Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> ur	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type: no	one							
Depth (in	ches):						Hydric Soi	l Present? Yes 🖌 No
Remarks:								
i								



Wetland data point WPOA411e\_w facing west



Wetland data point WPOA411e\_w facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: Poca	hontas County	Sampling Date: 6/2/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa411_u
Investigator(s): GB, KO	Section, Township	o, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): slope		convex, none): <u>none</u>	Slope (%): <u>12</u>
Subregion (LRR or MLRA): <u>N</u> Lat: -8	30.0775766	Long: <u>38.37780843</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classific	cation: UPLAND
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes I	No (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answe	ers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:		Magan watland lag	atad in a draw		
Upland data point taken on slope above	a saturated PE	in seep wetland loca	ated in a draw.		

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 S	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
Saturation Present? Yes No Vo Depth (inches):	
Saturation Present? Yes No Vo Depth (inches):	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	

Sampling Point: wpoa411\_u

, ,	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )			Status	
Acer saccharum	35	Yes	FACU	Number of Dominant Species That are OBL EACW or EAC: $4$ (A)
••	15	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Betula alleghaniensis				Total Number of Dominant
3. Acer rubrum	10	No	FAC	Species Across All Strata: 7 (B)
4 Fagus grandifolia	10	No	FACU	(=)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B)
6				
7.				Prevalence Index worksheet:
	70	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 35		total cover:	14	OBL species 0 x 1 = 0
15	20% of	total cover:		0
Sapling/Shrub Stratum (Plot size:)				FACW species $\begin{array}{c} 0 \\ x 2 = \\ 123 \end{array}$
<sub>1.</sub> Fagus grandifolia	20	Yes	FACU	FAC species x 3 =
<sub>2.</sub> Betula alleghaniensis	6	Yes	FAC	FACU species x 4 = 296
3. Acer rubrum	2	No	FAC	UPL species x 5 =0
				115 /10
4. Acer saccharum		No	FACU	Column Totals: (A) (B)
5				Prevalence Index = $B/A = 3.64$
6		·		Hydrophytic Vegetation Indicators:
7		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	30	= Total Cover		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 15			6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
-	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Anemone quinquefolia	7	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Erythronium umbilicatum	4	Yes	FAC	
3. Dryopteris carthusiana	4	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		103	TAO	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		<u> </u>		Continue/Chruck Missolution and Inco
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
				m) tall.
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	15	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 7.5	20% of	total cover:	3	
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
1. none	0			height.
1. <u></u>				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes Vo No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s				L
	neet.)			

Profile Des	cription: (Describe	to the dep	th needed to docu	ment the in	dicator o	or confirm	the absence of ir	dicator	·s.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-2	5YR 2.5/2	100					L			
2-9	5YR 3/3	100					CL			
9-18	5YR 3/4	100					SCL			
	<u></u>									
	·									
	·									
<sup>1</sup> Type: C=C	Concentration, D=Dep	pletion. RM=	=Reduced Matrix. M	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pc	ore Linin	g. M=Matrix.	
	Indicators:		,						blematic Hyd	ric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	e (S7)			2 cm 1	Muck (A	10) (MLRA 14	7)
	pipedon (A2)		Polyvalue Be	( )	e (S8) <b>(M</b>	LRA 147.		•	Redox (A16)	,
	listic (A3)		Thin Dark Su				·	.RA 147	. ,	
Hydrog	en Sulfide (A4)		Loamy Gleye	. ,	•		Piedm	ont Floo	odplain Soils (F	19)
	ed Layers (A5)		Depleted Ma	•	,			.RA 136	• •	- /
	uck (A10) (LRR N)		Redox Dark	· ,	5)		•		Dark Surface (	TF12)
	ed Below Dark Surfac	e (A11)	Depleted Da						n in Remarks)	
	ark Surface (A12)		Redox Depre					(_,,p.o		
	Mucky Mineral (S1) (	LRR N.	Iron-Mangan		,	RR N.				
	A 147, 148)	,	MLRA 13		- (· · -/ <b>(</b> -	,				
	Gleyed Matrix (S4)		Umbric Surfa	,	ILRA 13	6. 122)	<sup>3</sup> Indicato	rs of hv	drophytic vege	tation and
	Redox (S5)		Piedmont Flo	· / ·				-	ogy must be pr	
	d Matrix (S6)		Red Parent I	•	. ,	•	•	•	d or problemat	
	Layer (if observed)	:			, ,				•	
Type: <u>n</u>	one									
	nches):						Hydric Soil Pres	sent?	Yes	No 🖌
Remarks:										



Upland data point WPOA411\_u facing west



Upland data point WPOA411\_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: P	ocahontas County	Sampling Date: 6/2/2016		
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa415e_w		
Investigator(s): GB, KO	Section, Town	ship, Range: <u>No</u> PLSS in this a	irea		
Landform (hillslope, terrace, etc.): swale	Local relief (conca	ave, convex, none): <u>concave</u>	Slope (%): <u>4</u>		
Subregion (LRR or MLRA): N Lat: -80.084	133167	Long: <u>38.38239601</u>	Datum: WGS 1984		
Soil Map Unit Name:		NWI class	sification: PEM		
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes	No (If no, explain i	n Remarks.)		
Are Vegetation, Soil, or Hydrology signi	ificantly disturbed?	Are "Normal Circumstance	s" present? Yes 🔽 No		
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any ans	wers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map she	owing sampling	point locations, transed	cts, important features, etc.		
Hydrophytic Vegetation Present?       Yes        V       No_         Hydric Soil Present?       Yes        V       No_         Wetland Hydrology Present?       Yes        V       No_	within	Sampled Area a Wetland? Yes	No		

#### Remarks:

Saturated PEM seep wetland located in a swale, portion of adjacent roadside ditch, and adjacent small depression; on either side of existing gravel road and connected via an 18" corrugated metal culvert. Seep is located well outside the proposed access road corridor. NCWAM key = seep

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of or	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 I	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 So	ils (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 In	Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Ye	′es No Depth (inches):	
Water Table Present? Ye	<pre>/es No Depth (inches):</pre>	
	∕es No Depth (inches):0	Wetland Hydrology Present? Yes <u></u> No
(includes capillary fringe)	gauge, monitoring well, aerial photos, previous inspect	tions) if available:
	r gauge, monitoring weil, achar photos, previous inspec	
Remarks:		

Sampling Point: wpoa415e\_w

	Abaaluta	- Daminant li		Deminence Test werkehest
Tree Stratum (Plot size:30)	Absolute	Dominant In Species?		Dominance Test worksheet:
	<u>% Cover</u>	Species	Status	Number of Dominant Species
1. none				That Are OBL, FACW, or FAC: 5 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				
				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 100 (A/B)
6				
				Prevalence Index worksheet:
7	0	· <u> </u>		Total % Cover of: Multiply by:
	0	= Total Cove	r	40 40
50% of total cover: 0	20% of	total cover:	0	OBL species 40 x 1 =40
15				FACW species $x = 30$
Sapling/Shrub Stratum (Plot size:)				10 20
1. none	0			FAC species $x_3 = $
		·		FACU species $0   x 4 = 0$
2		·		
3				UPL species x 5 =
				Column Totals: <u>65</u> (A) <u>100</u> (B)
4		·		
5				Prevalence Index $= B/A = 1.53$
				Prevalence Index = B/A =1.53
6		·		Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9				$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cove		
50% of total cover: 0			0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )				
1. Micranthes micranthidifolia	15	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<sub>2.</sub> Glyceria striata	15	Yes	OBL	
3. Carex scabrata	10	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Veratrum viride	10	Yes	FACW	Definitions of Four Vegetation Strata:
5. Ranunculus acris	10	Yes	FAC	Deminions of Four Vegetation Strata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Viola cucullata	5	No	FACW	more in diameter at breast height (DBH), regardless of
7				height.
				neight.
8				Senling/Shruh Weedy plants evaluding vince loss
9				<b>Sapling/Shrub</b> – 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
	65	Tatal	_	
20 5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 32.5	20% of	total cover:	13	Weedy vine All weedy vince greater than 2.20 ft in
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
1. none	0			height.
1. <u></u>	0			
2				
3		·		
4				I hadnon hartin
5				Hydrophytic
5	-	·		Vegetation Present? Yes V No
	0	= Total Cove	r .	Present? Yes V No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dep	oth needed to docur	nent the i	ndicator	or confirm	the absence of	indicators.)		
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-6	5YR 2.5/1	100					SICL			
6-18	5YR 3/1	97	5YR 4/6	3	С	PL/M	SICL			
							<u> </u>			
							<u> </u>			
							<u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=F	Pore Lining, M=Matrix.		
Hydric Soil								rs for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Dark Surface	. ,				Muck (A10) <b>(MLRA 147)</b>		
	pipedon (A2)		Polyvalue Be		· / ·		·	st Prairie Redox (A16)		
	istic (A3)		Thin Dark Su			47, 148)	•	ILRA 147, 148)		
	en Sulfide (A4)		Loamy Gleye		F2)			mont Floodplain Soils (F19)		
	d Layers (A5)		Depleted Ma	· · ·			(MLRA 136, 147)			
	uck (A10) <b>(LRR N)</b>		Kedox Dark		,			Shallow Dark Surface (TF12)		
·	d Below Dark Surface	e (A11)	Depleted Dat		. ,		Othe	er (Explain in Remarks)		
	ark Surface (A12) /lucky Mineral (S1) <b>(L</b>		Redox Depre Iron-Mangan		,					
-	A 147, 148)	KK N,	MLRA 13		es (F12) <b>(</b> I					
	Gleyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	<sup>3</sup> Indicat	tors of hydrophytic vegetation and		
	Redox (S5)		Piedmont Flo					nd hydrology must be present,		
	Matrix (S6)		Red Parent N					s disturbed or problematic.		
	Layer (if observed):				, (	,				
Type: no										
Depth (in							Hydric Soil Pre	esent? Yes 🖌 No		
Remarks:							1			



Wetland data point WPOA415e\_w facing northeast



Wetland data point WPOA415e\_w facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: Poca	hontas County	_ Sampling Date: 6/2/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa415_u
Investigator(s): GB, KO	Section, Township	, Range: No PLSS in this are	
Landform (hillslope, terrace, etc.): <u>slope</u>		convex, none): none	Slope (%): <u>8</u>
Subregion (LRR or MLRA): N Lat: -80.0	08431554	Long: <u>38.38238747</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classifie	cation: UPL
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes I	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology si	gnificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answe	ers in Remarks.)
			• • • • • •

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken on a gentle slop	e for a saturate	ed PEM seep wetlar	d located in a swale.		

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 S	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 _ Cepth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
	, , ,
Saturation Present? Yes No <u>✓</u> Depth (inches): (includes capillary fringe)	, , ,
Saturation Present? Yes No <u>✓</u> Depth (inches): (includes capillary fringe)	, , ,
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,
Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentary Remarks:	, , ,

Sampling Point: wpoa415\_u

	Abaaluta	- Deminent In	diantan	Deminence Test worksheet
Tree Stratum (Plot size: <u>30</u> )	Absolute	Dominant In Species?	Status	Dominance Test worksheet:
	20	Yes	FACU	Number of Dominant Species
1. Fagus grandifolia				That Are OBL, FACW, or FAC:3 (A)
<sub>2.</sub> Betula alleghaniensis	15	Yes	FAC	
3. Betula lenta	15	Yes	FACU	Total Number of Dominant
	10	No	FACU	Species Across All Strata: (B)
4. Prunus serotina				Percent of Dominant Species
<sub>5.</sub> Magnolia acuminata	10	No	FACU	That Are OBL, FACW, or FAC: 42.85714285 (A/B)
6				
				Prevalence Index worksheet:
7				
	70	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 35	20% of	total cover:	14	OBL species x 1 =0
15				FACW species $\begin{array}{c} 0 \\ x 2 = \\ \end{array}$
Sapling/Shrub Stratum (Plot size: 15)	45	Vaa		21 02
1. Fagus grandifolia	15	Yes	FACU	82 228
<sub>2.</sub> Betula alleghaniensis	6	Yes	FAC	FACU species X 4 =
3. Betula lenta	4	No	FACU	UPL species $0   x 5 = 0$
	2		FACU	113 /01
4. Acer pensylvanicum		No	FACU	Column Totals: (A) (B)
5				Prevalence Index = $B/A = 3.72$
				Prevalence Index = $B/A = 3.72$
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
				2 - Dominance Test is >50%
9	07			3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: <u>13.5</u>	20% of	total cover:	5.4	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Maianthemum canadense	10	Vaa		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1		Yes	FAC	
<sub>2.</sub> Podophyllum peltatum	4	Yes	FACU	
3. Anemone quinquefolia	2	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				111) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	16	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 8		total cover:		
	20 % 01			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. <sup>none</sup>	0			
2.				
3			<u> </u>	
4				Uvdranhvija
5.				Hydrophytic Vegetation
o	0		<u> </u>	Present? Yes No V
		= Total Cover	<u>^</u>	
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the depth	n needed to docum	nent the i	ndicator o	or confirm	the absence	e of indicato	ors.)	
Depth	Matrix		Redo	x Features	8					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-2	5YR 2.5/2	100					L			
2-12	5YR 3/3	100					SCL			
12-18	5YR 4/4	100					SCL			
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion RM=F	Reduced Matrix MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location:	– PI =Pore Linii	ng, M=Matrix.	
Hydric Soil									oblematic Hy	
Histosol			Dark Surface	(S7)					A10) <b>(MLRA 1</b>	
	pipedon (A2)		Polyvalue Be				148)		Redox (A16)	
	istic (A3)		Thin Dark Su			47, 148)		(MLRA 14		
	en Sulfide (A4)		Loamy Gleye		F2)				odplain Soils	(F19)
	d Layers (A5)		Depleted Ma	. ,				(MLRA 13		
	uck (A10) <b>(LRR N)</b>		Redox Dark		,			•	Dark Surface	· ,
·	d Below Dark Surface	(A11)	Depleted Dar		. ,			Other (Explai	n in Remarks	)
	ark Surface (A12)		Redox Depre							
	/lucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) <b>(l</b>	_RR N,				
	A 147, 148)		MLRA 13	•			3.			
-	Gleyed Matrix (S4)		Umbric Surfa					•	/drophytic veg	
	Redox (S5)		Piedmont Flo					•	logy must be	
	Matrix (S6)		Red Parent N	laterial (F	21) (MLR/	A 127, 147	' <b>)</b> U	inless disturbe	ed or problem	atic.
Type: no	Layer (if observed):									
	ches):						Hydric So	oil Present?	Yes	No 🖌
Remarks:							1			



Upland data point WPOA415\_u facing south



Upland data point WPOA415\_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Pocahontas	County	Sampling Date: 6/6/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wpoa416e_w
Investigator(s): GB, KO	Section, Township, Rang	e: No PLSS in this area	
Landform (hillslope, terrace, etc.): draw	Local relief (concave, convex		Slope (%): <u>4</u>
Subregion (LRR or MLRA): N Lat: 38.3779329	9 Long:	-80.08779091	Datum: WGS 1984
Soil Map Unit Name:		NWI classificat	tion: PEM
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No 🔄	(If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "No	ormal Circumstances" pre	esent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If need	ded, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point loc	ations, transects,	important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🥢 No			
Remarks:							
Saturated PEM wetland located in a draw along perennial stream spoa428 upstream of culvert crossing for existing road; NCWAM key = Non-tidal Freshwater Marsh.							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water Fauna (B13)</li> </ul>	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Remarks:	

Sampling Point: wpoa416e\_w

, , ,	A I I ( .	• Densieren (	P	Deminence Test worksheet
Tree Stratum (Plot size: 30 )	Absolute	Dominant Ir Species?		Dominance Test worksheet:
	0	Species	Status	Number of Dominant Species
1. none				That Are OBL, FACW, or FAC:3 (A)
2				
				Total Number of Dominant
3		·		Species Across All Strata: <u>3</u> (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
				Prevalence Index worksheet:
7	0	·		Total % Cover of: Multiply by:
	0	= Total Cover	r	45 45
50% of total cover: 0	20% of	total cover:	0	OBL species x 1 = 45
15				FACW species5 x 2 =10
Sapling/Shrub Stratum (Plot size:)				25 105
1. none	0			FAC species $x_3 = $
				FACU species $0   x 4 = 0$
2				
3				UPL species         x 5 =
				Column Totals: 85 (A) 160 (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				✓ 3 - Prevalence Index is $\leq 3.0^1$
	0	= Total Cover		
50% of total cover: 0			0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5 )				
1. Carex scabrata	20	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Ranunculus acris	20	Yes	FAC	1
3. Glyceria striata	20	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Laportea canadensis	10	No	FAC	Definitions of Four Vegetation Strata:
5. Athyrium asplenioides	5	No	FAC	Deminions of Four Vegetation Ottata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Veratrum viride	5	No	FACW	more in diameter at breast height (DBH), regardless of
7 Chelone glabra	5	No	OBL	height.
1		·		neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
				m) tall.
10				
11.				Herb – All herbaceous (non-woody) plants, regardless
	85	Tatal Cause		of size, and woody plants less than 3.28 ft tall.
12 5		= Total Cover		of size, and woody plants less than 5.20 it tall.
50% of total cover: 42.5	20% of	total cover:	17	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				
1 none	0			height.
1				
2				
3		·		
4				Hydrophytic
5				Vegetation
<sup>3.</sup>		·		Present? Yes V No
		= Total Cover		
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	neet.)			
1				

Profile Des	cription: (Describe t	o the de	pth needed to docun	nent the	indicator of	or confirm	the absence	e of indicators.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-6	5YR 3/2	100					CL		
6-14	5YR 4/2	97	5YR 4/6	3	С	PL/M	CL	rock at 14"	
	·								
-									
	·								
	·						-		
	Concentration, D=Depl	etion, RN	I=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.	
-	Indicators:							ators for Problematic Hydric Soils <sup>3</sup> :	
Histoso	. ,		Dark Surface	· ·				2 cm Muck (A10) <b>(MLRA 147)</b>	
	pipedon (A2)		Polyvalue Be				148) (	Coast Prairie Redox (A16)	
	listic (A3)		Thin Dark Su		, <b>.</b>	47, 148)		(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleye		(F2)		F	Piedmont Floodplain Soils (F19)	
	d Layers (A5)		✓ Depleted Mat	. ,				(MLRA 136, 147)	
	uck (A10) <b>(LRR N)</b>	(	Redox Dark S	•	,			Very Shallow Dark Surface (TF12)	
	ed Below Dark Surface	e (A11)	Depleted Dar		. ,		(	Other (Explain in Remarks)	
	Park Surface (A12)		Redox Depre	•	,				
	Mucky Mineral (S1) <b>(L</b> A 147, 148)	KK N,	Iron-Mangano MLRA 13		es (F12) (I	LKK N,			
	Gleyed Matrix (S4)		Umbric Surfa		(MI DA 12	6 122)	<sup>3</sup> In/	dicators of hydrophytic vegetation and	
	Redox (S5)		Piedmont Flo	. ,	•			etland hydrology must be present,	
	d Matrix (S6)		Red Parent N	•	. ,	•		aless disturbed or problematic.	
	Layer (if observed):			nateriai (i		~ 121, 141	<b>)</b> ui		
Type: no	one								
						Hydric Soi	il Present? Yes V No		
Remarks:									



Wetland data point WPOA416e\_w facing north



Wetland data point WPOA416e\_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Poca	hontas County	Sampling Date: 6/6/2016	
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa416_u	
Investigator(s): GB, KO	Section, Township	, Range: <u>No PLSS in this are</u>		
Landform (hillslope, terrace, etc.): slope		convex, none): none	Slope (%): <u>30</u>	
Subregion (LRR or MLRA): N Lat: 38	8.37795107	Long: <u>-80.08770059</u>	Datum: WGS 1984	
Soil Map Unit Name:		NWI classifi	cation: UPLAND	
Are climatic / hydrologic conditions on the site typical for th	his time of year? Yes 1	No (If no, explain in F	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 answe	ers in Remarks.)	

# SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>v</u> No <u>v</u> No <u>v</u>	<ul> <li>Is the Sampled Area</li> <li>within a Wetland?</li> </ul>	Yes	No
Remarks:					
Upland data point taken on slope above	a saturated PE	M wetland lo	ocated in a draw.		

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 S	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
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Mo Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	
Saturation Present? Yes No Ves Depth (inches): Depth (inches): Personal depth (inches): Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	

Sampling Point: wpoa416\_u

, ,	Abaaluta	- Dominant In	diantar	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Ir Species?	Status	
1 Fagus grandifolia	30	Yes	FACU	Number of Dominant Species That Are OBL EACW or EAC: $3$ (A)
14	25	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)
2. Acer saccharum				Total Number of Dominant
<sub>3.</sub> Betula alleghaniensis	15	Yes	FAC	Species Across All Strata: 8 (B)
4 Fraxinus pennsylvanica	5	No	FACW	(=)
				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC:37.5 (A/B)
6				
7				Prevalence Index worksheet:
	75	= Total Cover		Total % Cover of:Multiply by:
50% of total cover:37.5		total cover:	15	OBL species 0 x 1 = 0
15	20 % 01			FACW species $5 \times 2 = 10$
Sapling/Shrub Stratum (Plot size:)		.,		25 105
1. Fagus grandifolia	15	Yes	FACU	FAC species $x_3 = 280$
<sub>2.</sub> Hamamelis virginiana	10	Yes	FACU	FACU species X 4 =
3. Acer pensylvanicum	4	No	FACU	UPL species0 x 5 =0
	3	No	FACU	Column Totals: 135 (A) 495 (B)
4. Magnolia acuminata				
5. Acer saccharum	3	No	FACU	Prevalence Index = B/A =3.66
6				
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				
	35	= Total Cover		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:17.5		total cover:	7	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
_	20 % 01			data in Remarks or on a separate sheet)
	40			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Viola sagittata	12	Yes	FAC	
<sub>2.</sub> Maianthemum canadense	5	Yes	FAC	
3. Anemone quinquefolia	5	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Viola rotundifolia	3	No	FAC	be present, unless disturbed or problematic.
4			TAC	Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7		·		height.
8		<u> </u>		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.				
	25			Herb – All herbaceous (non-woody) plants, regardless
19.5		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>12.5</u>	20% of	total cover:	5	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. none	0			
2				
3				
4				Hydrophytic
5				Vegetation
		= Total Cover		Present? Yes No
50% of total cover: 0			~	
		total cover:		
Remarks: (Include photo numbers here or on a separate si				

Profile Des	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	e of indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2	5YR 2.5/2	100					L		
2-5	5YR 3/2	100					CL		
5-13	5YR 3/3	100					CL	rock at 13"	
		·							
	· .	. <u> </u>						<b></b>	
		. <u> </u>							
1							2		
	Concentration, D=Dep Indicators:	letion, RM=I	Reduced Matrix, M	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hyd	rie Ceile <sup>3</sup>
-				(07)				-	
Histoso	. ,		Dark Surface		(0.0) (1)			2 cm Muck (A10) <b>(MLRA 14</b>	7)
	pipedon (A2)		Polyvalue Be				148)(	Coast Prairie Redox (A16)	
	listic (A3)		Thin Dark Su			47, 148)	,	(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleye		F2)		'	Piedmont Floodplain Soils (F	-19)
	d Layers (A5)		Depleted Ma Redox Dark	, ,	·c)		,	(MLRA 136, 147)	
	uck (A10) <b>(LRR N)</b> ed Below Dark Surface	~ ( \ 1 1 )	Depleted Da	•	,		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
	ark Surface (A12)	e (ATT)	Redox Depre					Other (Explain in Remarks)	
	Mucky Mineral (S1) <b>(L</b>		Iron-Mangan		,				
-	A 147, 148)	.NN N,	MLRA 13		es (F12) <b>(</b>	LNN N,			
	Gleyed Matrix (S4)		Umbric Surfa		MI PA 13	6 122)	<sup>3</sup> In	dicators of hydrophytic vege	tation and
-	Redox (S5)		Piedmont Flo	. , .				etland hydrology must be pr	
	d Matrix (S6)		Red Parent N	•	. ,	•		nless disturbed or problemat	
Restrictive	Layer (if observed):				/ (	,			-
Type: no	one								
Depth (ir	nches):						Hydric Soi	il Present? Yes	No 🖌
Remarks:									



Upland data point WPOA416\_u facing south



Upland data point WPOA416\_u facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: Pocahontas County	Sampling Date: 6/7/2016
Applicant/Owner: Dominion	State: WV	Sampling Point: wpoa418e_w
Investigator(s): GB, KO	_ Section, Township, Range: No PLSS in this ar	ea
Landform (hillslope, terrace, etc.): road cut	ocal relief (concave, convex, none): none	Slope (%): <u>60</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.37173873</u>		
Soil Map Unit Name:	NWI classi	fication: PEM
Are climatic / hydrologic conditions on the site typical for this time of y	4	
Are Vegetation, Soil <u>v</u> , or Hydrology <u>v</u> significantl	y disturbed? Are "Normal Circumstances	" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present?       Yes          ✓ No          Hydric Soil Present?       Yes          ✓ No          Wetland Hydrology Present?       Yes          ✓ No	<ul> <li>is the Sampled Area</li> <li>within a Wetland? Yes <u>*</u></li> </ul>	ν Νο

#### Remarks:

Saturated PEM seep wetland located on road cut above existing gravel road; diffuse seepage across mapped extent; outflow is origin of intermittent stream spoa434 within roadside ditch; NCWAM key = seep.

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)        High Water Table (A2)      Hydrogen Sulfide Odor (C1)         ✓       Saturation (A3)      Oxidized Rhizospheres on Living F        Water Marks (B1)      Presence of Reduced Iron (C4)        Sediment Deposits (B2)       Recent Iron Reduction in Tilled So	Dry-Season Water Table (C2)
<ul> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):	Wetland Hydrology Present? Yes 🗸 No
Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	

Sampling Point: wpoa418e\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
1 Ulmus rubra	5	Yes	FAC	Number of Dominant Species That Are OBL EACW or EAC: $5$ (A)
''		·		That Are OBL, FACW, or FAC: (A)
2		·		Total Number of Dominant
3				Species Across All Strata: 6 (B)
		·		
4		·		Percent of Dominant Species
5		· . <u></u>		That Are OBL, FACW, or FAC: 83.33333333 (A/B)
6				
		·		Prevalence Index worksheet:
7		·		Total % Cover of Multiply by
	5	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 2.5	20% of	total cover:	1	OBL species x 1 =5
45		····· <u> </u>		FACW species $25$ x 2 = $50$
Sapling/Shrub Stratum (Plot size: 15)	•		FAOL	FF 40F
1. Sambucus racemosa	3	Yes	FACU	FAC species $3$ $x_3 = 105$
2				FACU species $3   x 4 = 12$
		·		UPL species $0   x 5 = 0$
3				98 242
4				Column Totals: (A) (B)
5			_	0.40
				Prevalence Index = B/A =2.46
6	. <u> </u>	·		Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9		·		$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	3	= Total Cove	r	
50% of total cover: 1.5		total cover:	0.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	2078.01			data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Micranthes micranthidifolia	15	Yes	OBL	
2. Laportea canadensis	15	Yes	FAC	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Verbesina alternifolia	15	Yes	FAC	be present, unless disturbed or problematic.
<sub>4.</sub> Impatiens capensis	15	Yes	FACW	
5. Poa sylvestris	10	No	FACW	Definitions of Four Vegetation Strata:
		·		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Monarda didyma	10	No	FAC	more in diameter at breast height (DBH), regardless of
7 Carex amphibola	5	No	FAC	height.
8 Ranunculus acris	5	No	FAC	noight
8			170	Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
		·		, ,
11		·		Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45		total cover:		
		····· <u> </u>		Woody vine – All woody vines greater than 3.28 ft in
	•			height.
1. none	0			
2				
		·		
3		·		
4				I hadnon hartin
5				Hydrophytic Vegetation
0	-	· . <u></u>		Present? Yes <u>V</u> No
		= Total Cove	<u>^</u>	
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	hoot )			
	neet.)			

Depth	Matrix		Redo	x Feature	s			
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	5YR 3/2	95	7.5YR 4/6	5	C	M	CL	rock at 5"
	Concentration, D=Depl	etion, RN	I=Reduced Matrix, M	S=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.
dric Soil	Indicators:						Indi	icators for Problematic Hydric Soils <sup>3</sup>
_ Histosc	( )		Dark Surface					2 cm Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be		. , .		148)	Coast Prairie Redox (A16)
_	listic (A3)		Thin Dark Su	• •		47, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)			Piedmont Floodplain Soils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)			Very Shallow Dark Surface (TF12)
Deplete	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	e (F7)			Other (Explain in Remarks)
Thick D	Oark Surface (A12)		Redox Depre	essions (F	8)			
Sandy	Mucky Mineral (S1) (L	RR N.	Iron-Mangar	ese Mass	es (F12) <b>(</b> I	LRR N.		
	A 147, 148)		MLRA 13		· / ·			
	Gleyed Matrix (S4)		Umbric Surfa	,	(MLRA 13	6, 122)	<sup>3</sup> Ir	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo	• •	•			wetland hydrology must be present,
-	d Matrix (S6)		Red Parent I	•	• •	•	•	unless disturbed or problematic.
	Layer (if observed):			viatoriai (i		~ 121, 141	) (	
Type: rc								
Depth (ir	nches): <u>5</u>						Hydric So	oil Present? Yes 🔽 No
emarks:							•	



Wetland data point WPOA418e\_w facing northeast



Wetland data point WPOA418e\_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Poc	ahontas County	_ Sampling Date: 6/7/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa418_u
Investigator(s): GB, KO	Section, Townshi	p, Range: <u>No PLSS in this are</u>	
Landform (hillslope, terrace, etc.): slope		e, convex, none): <u>none</u>	Slope (%): <u>50</u>
Subregion (LRR or MLRA): N Lat: 38	.37169498	Long: <u>-80.08643372</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classifie	cation: UPLAND
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes	No (If no, explain in F	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 answe	ers in Remarks.)

# SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No		Is the Sampled Area within a Wetland?	Yes	No	<u>v</u>
Remarks:							
Upland data point taken on a steep rock	y slope for a sa	turated	I PEM seep w	vetland.			

Wetland Hydrology Indicators:         Secondary Indicators (minimum of two	equired)
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 Surfa	ce (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 Imager	y (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 <u>No</u> Depth (inches): <u>Wetland Hydrology Present? Yes </u> No	<u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
no hydrology indicators present	

Sampling Point: wpoa418\_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )			Status	
Acer saccharum	35	Yes	FACU	Number of Dominant Species
1.	25	Yes	FACU	That Are OBL, FACW, or FAC: (A)
2. Tilia americana				Total Number of Dominant
<sub>3.</sub> Carya glabra	10	No	FACU	Species Across All Strata: 4 (B)
4. Prunus serotina	5	No	FACU	· · · · · · · · · · · · · · · · · · ·
		· ·		Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC:25 (A/B)
6		· ·		Prevalence Index worksheet:
7				
	75	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:37.5	20% of	total cover:	15	OBL species <u>5</u> x 1 = <u>5</u>
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $5 \times 2 = 10$
1. Fagus grandifolia	15	Yes	FACU	FAC species $60 \times 3 = 180$
				100 100
2. Tilia americana	5	No	FACU	FACU species $0$ $x = 0$
3. Acer saccharum	5	No	FACU	UPL species x 5 =
<sub>4.</sub> Betula alleghaniensis	5	No	FAC	Column Totals: (A) (B)
5				
5				Prevalence Index = B/A =3.5
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		2 - Dominance Test is >50%
9.				
	30	= Total Cover		3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover:15		total cover:	6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	2070.01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size:) 1. Laportea canadensis	50	N	540	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		Yes	FAC	
2. Micranthes micranthidifolia	5	No	OBL	The disates of budging and problem distribution of budgets are set
<sub>3.</sub> Poa sylvestris	5	No	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Ranunculus acris	5	No	FAC	
		· ·		Definitions of Four Vegetation Strata:
5		· ·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		· ·		more in diameter at breast height (DBH), regardless of
7		<u> </u>		height.
8				<b>Conting/Chrub</b> Weady planta avaluding vines loss
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
		·		,
11	65			Herb – All herbaceous (non-woody) plants, regardless
22 5		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>32.5</u>	20% of	total cover:	13	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1. none	0			
2.				
3.				
		·		
4		·		Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No V
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Des	cription: (Describe te	o the dept	h needed to docur	nent the in	dicator o	or confirm	the absence	of indicato	rs.)	
Depth	Matrix			x Features	1					
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	Loc <sup>2</sup>	Texture		Remarks	
0-5	5YR 3/2	100					CL			
5-9	5YR 3/3	100					CL	rock at 9"		
		·		<u> </u>						
								-		
							·			
	·									
	·									
	·	·		<u> </u>						
	Concentration, D=Deple	etion, RM=I	Reduced Matrix, MS	S=Masked S	Sand Gra	iins.	<sup>2</sup> Location: P			
•	Indicators:									ydric Soils <sup>3</sup> :
Histoso	. ,		Dark Surface	. ,					10) <b>(MLRA</b>	•
	pipedon (A2)		Polyvalue Be				148) <u> </u>		Redox (A16	)
	listic (A3)		Thin Dark Su	. , .	•	47, 148)	_	(MLRA 14		
	en Sulfide (A4)		Loamy Gleye		2)		P		odplain Soils	s (F19)
	d Layers (A5)		Depleted Ma	. ,				(MLRA 13		(TE40)
	uck (A10) <b>(LRR N)</b> ed Below Dark Surface	(11)	Redox Dark	· ·	,				Dark Surfac	
	ark Surface (A12)	(ATT)	Redox Depre					niei (Expla		5)
	Mucky Mineral (S1) <b>(LI</b>		Iron-Mangan	• • •		RR N				
	A 147, 148)	м, <b>м</b> ,	MLRA 13		3 (I IZ) <b>(</b> E	,				
	Gleyed Matrix (S4)		Umbric Surfa	•	ILRA 13	6, 122)	<sup>3</sup> Ind	icators of hy	/drophytic ve	getation and
-	Redox (S5)		Piedmont Flo						logy must be	-
	d Matrix (S6)		Red Parent M	•	. ,	•			ed or probler	
	Layer (if observed):				, ,					
Type: ro										
Depth (in							Hydric Soil	Present?	Yes	No 🖌
Remarks:										
1										



Upland data point WPOA418\_u facing east



Upland data point WPOA418\_u facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: F	Pocahontas County	_ Sampling Date: <u>5/11/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa401e_w
Investigator(s): GB, SA	Section, Towr	nship, Range: <u>No PLSS in this are</u>	ea
Landform (hillslope, terrace, etc.): <a href="mailto:swale">swale</a>		ave, convex, none): <u>concave</u>	Slope (%): <u>7</u>
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3038</u>	5462	Long: <u>-79.87579806</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes 🛛 🖌	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natura	ally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	_ No
Pomarka:					

#### Remarks:

Saturated PEM seep wetland located in a slight swale at an abrupt slope break; hydrology from seep ppoa400; water infiltrates underground at mapped extent of wetland; almost no vegetation within mapped extent of wetland; surrounding area is mature second growth mixed hardwoods with white pine element; NCWAM key = seep. Feature is just outside the 300 foot survey corridor.

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one	e is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one	<ul> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living F</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	
Field Observations:		
	n Na 🖌 Darth (inchas))	
	s No Depth (inches):	
Saturation Present? Yes (includes capillary fringe)	s No Depth (inches): s No Depth (inches): gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No
Remarks:		
Remarks.		

Sampling Point: wpoa401e\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
				Number of Dominant Species That Are OBL EACW or EAC: $3$ (A)
1				That Are OBL, FACW, or FAC:3 (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: 100 (A/B)
6				
7				Prevalence Index worksheet:
	0			Total % Cover of: Multiply by:
0		= Total Cove		OBL species         0         x 1 =         0
50% of total cover:0	20% of	total cover:	0	0
Sapling/Shrub Stratum (Plot size:15)				FACW species $x 2 = $
1 Rhododendron periclymenoides	2	Yes	FAC	FAC species $7$ x 3 = $21$
·······		·		FACU species x 4 =0
2		·		
3				UPL species $0 \times 5 = 0$
4				Column Totals: (A) (B)
5		·		Prevalence Index = B/A =3
6		·		Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is $\leq 3.0^1$
	2	= Total Cove	r	
50% of total cover: 1			0.4	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
<sub>1.</sub> Carex blanda	3	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Dryopteris carthusiana	2	Yes	FAC	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
				Deminions of Four vegetation Strata.
5				<b>Tree</b> – 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: 2.5	20% of	total cover:	1	We advantage Allowed to the second statistics of 0.00 (the
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1		·		
2		. <u> </u>		
3				
		·		
4		·		Hydrophytic
5		. <u> </u>		Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0		total cover:	<u>^</u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe to	the dep	th needed to docun	nent the	indicator of	or confirm	the absence	e of indicators.)		
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-3	10YR 3/1	100					SL			
3-12	10YR 5/1	95	10YR 5/8	5	С	PL/M	SCL	rock at 13"		
	·				·			·		
	·									
	·				·			·		
	· ·				·					
		tion PM	- Roduced Metrix M	-Maaka	d Sond Cr		<sup>2</sup> Logation: E			
Hydric Soil	oncentration, D=Deple		=Reduced Matrix, Ma	S=IVIASKee	u Sanu Gia	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils <sup>3</sup> :		
Histoso			Dark Surface	(\$7)				2 cm Muck (A10) <b>(MLRA 147)</b>		
	pipedon (A2)		Polyvalue Be	· · ·	ace (S8) <b>(N</b>	II RA 147		Coast Prairie Redox (A16)		
	istic (A3)		Thin Dark Su		• • •		140) <u> </u>	(MLRA 147, 148)		
	en Sulfide (A4)		Loamy Gleye			,,	F	Piedmont Floodplain Soils (F19)		
	d Layers (A5)		<ul> <li>Depleted Mar</li> </ul>		( )			(MLRA 136, 147)		
	uck (A10) (LRR N)		Redox Dark	, ,	F6)		Very Shallow Dark Surface (TF12)			
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)			
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)					
Sandy M	Mucky Mineral (S1) (LF	RR N,	Iron-Mangan	ese Mass	ses (F12) <b>(</b> I	LRR N,				
	A 147, 148)		MLRA 13	6)						
-	Gleyed Matrix (S4)		Umbric Surfa	. ,	•			dicators of hydrophytic vegetation and		
	Redox (S5)		Piedmont Flo	•	· ,	•	•	etland hydrology must be present,		
	d Matrix (S6)		Red Parent N	Aaterial (F	-21) <b>(MLR</b>	A 127, 147	') ur	nless disturbed or problematic.		
	Layer (if observed):									
Type: <u>no</u>	ле									
Depth (in	ches):						Hydric Soi	l Present? Yes 🥙 No		
Remarks:										



Photo 1 Wetland data point WPOA401e\_w facing north



Photo 2 Wetland data point WPOA401e\_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Pocahontas County	Sampling Date: 5/11/2016
Applicant/Owner: Dominion	State: WV	Sampling Point: wpoa401_u
Investigator(s): GB, SA	_ Section, Township, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): slope	ocal relief (concave, convex, none): <u>none</u>	Slope (%): <u>15</u>
Subregion (LRR or MLRA): S Lat: 38.30390558	Long: <u>-79.87578549</u>	Datum: WGS 1984
Soil Map Unit Name:	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes 🖌 No (If no, explain in Ro	emarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally p	oroblematic? (If needed, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、</u>	Is the Sampled Area within a Wetland?	Yes	No	<u> </u>
Remarks: Upland data point taken adjacent to a s	aturated PEM se	eep we	tland located	in a slight swale along an abr	upt slope break.		

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 (C	Moss Trim Lines (B16)			
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)				
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)			
Water-Stained Leaves (B9)	Microtopographic Relief (D4)			
Aquatic Fauna (B13)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No 🔽 Depth (inches):				
Water Table Present? Yes No 🖌 Depth (inches):				
Saturation Present? Yes No <u>&lt;</u> Depth (inches): Wetlan (includes capillary fringe)	d Hydrology Present? Yes No/			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	available:			
Remarks:				
no hydrology indicators present				

Sampling Point: wpoa401\_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )			Status	
1. Acer rubrum	20	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
2. Quercus montana	20	Yes	UPL	
3. Quercus alba	20	Yes	FACU	Total Number of Dominant
4. Pinus strobus	10	No	FACU	Species Across All Strata: (B)
5. Robinia pseudoacacia	5	No	FACU	Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
6		· ·		Prevalence Index worksheet:
7	75	<u> </u>		Total % Cover of: Multiply by:
07.0		= Total Cover		
50% of total cover: <u>37.5</u>	20% of	total cover:	15	
Sapling/Shrub Stratum (Plot size: 15 )				FACVV species $x^2 = \frac{x^2}{2}$
1. Pinus strobus	15	Yes	FACU	FAC species33 x 3 =99
2. Rhododendron periclymenoides	5	Yes	FAC	FACU species65 x 4 =260
3. Hamamelis virginiana	5	Yes	FACU	UPL species20 x 5 =100
4. Acer rubrum	5	Yes	FAC	Column Totals:118 (A)459 (B)
5. Gaylussacia baccata	5	Yes	FACU	0.00
6. Kalmia latifolia	2	No	FACU	Prevalence Index = B/A =3.88
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		· ·		2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 18.5	20% of	total cover:	7.4	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Gaultheria procumbens	3	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex blanda	3	Yes	FAC	
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		<u> </u>		more in diameter at breast height (DBH), regardless of
7		· ·		height.
8		<u> </u>		Sapling/Shrub – Woody plants, excluding vines, less
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	6	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 3		total cover:		
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
1				neight.
2				
3				
4				Hydrophytic
5		· ·		Vegetation
		= Total Cover		Present? Yes No V
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe	to the dept	th needed to docur	nent the i	ndicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix		Redo	x Features	s					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture		Remarks	
0-2	10YR 2/1	100					L			
2-5	10YR 3/2	100					L			
5-13	10YR 5/2	35					CL	mixed mat	rix	
	10YR 5/6	65					CL	rock at 13	I	
					. <u> </u>					
1- 0.0							2			
	Concentration, D=Dep	pletion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.			ng, M=Matrix.	drie Ceile <sup>3</sup> .
-	Indicators:			(07)					oblematic Hy	
Histoso	. ,		Dark Surface						(10) (MLRA 14	•7)
	Epipedon (A2)		Polyvalue Be				148)(		Redox (A16)	
	listic (A3)		Thin Dark Su	• • •	•	47, 148)	-	(MLRA 14	•	<b>E</b> 40)
	en Sulfide (A4)		Loamy Gleye		F2)		ŀ		odplain Soils (	F19)
	ed Layers (A5)		Depleted Ma	· · ·				(MLRA 13	•	
	uck (A10) (LRR N)	( )	Redox Dark	(	,			•	Dark Surface	(1F12)
	ed Below Dark Surfac	e (A11)	Depleted Da				(	other (Explai	n in Remarks)	
	Dark Surface (A12)		Redox Depre							
	Mucky Mineral (S1) (	LRR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,				
	A 147, 148)		MLRA 13	,			2			
	Gleyed Matrix (S4)		Umbric Surfa						drophytic vege	
	Redox (S5)		Piedmont Flo	•	, ,	•	•	•	ogy must be p	
	d Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	<b>')</b> ur	less disturb	ed or problema	itic.
	Layer (if observed)	:								
Type: <u>n</u>	one									
Depth (ir	nches):						Hydric Soi	Present?	Yes	No
Remarks:										



# Photo 1 Upland data point WPOA401\_u facing northeast



Photo 2 Upland data point WPOA401\_u facing northwest

Project/Site: Atlantic Coast Pipeline	City/County:	Pocahontas County	_ Sampling Date: <u>5/12/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa402f_w
Investigator(s): GB, SA	Section, Tow	nship, Range: <u>No PLSS in this are</u>	
Landform (hillslope, terrace, etc.): slope		cave, convex, none): <u>concave</u>	Slope (%): <u>30</u>
Subregion (LRR or MLRA): S Lat: 38.30210	)139	Long: <u>-79.84682348</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	, No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natura	Illy problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	wing sampling	point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:						

Saturated PFO seep wetland located on a steep, rocky, concave side slope above perennial stream spoa400; spring ppoa402 & seep ppoa403 are source of hydrology and are within mapped extent of wetland; intermittent stream spoa401 begins at spring and flows through wetland; spoa401 continues out of mapped extent of wetland and flows into spoa400. NCWAM key = seep.

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)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>			
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 V Depth (inches):				
	Wetland Hydrology Present? Yes <u>V</u> No			
Water Table Present?       Yes       No       ✓       Depth (inches):          Saturation Present?       Yes       ✓       No        Depth (inches):          (includes capillary fringe)       Ves       ✓       No        Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):          Saturation Present?       Yes       ✓       No        Depth (inches):          (includes capillary fringe)       Ves       ✓       No        Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				
Water Table Present?       Yes       No       ✓       Depth (inches):				

Sampling Point: wpoa402f\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )		Species?	Status	Number of Dominant Species
1 Acer rubrum	12	Yes	FAC	That Are OBL, FACW, or FAC:9 (A)
2. Carya glabra	10	Yes	FACU	
3. Nyssa sylvatica	10	Yes	FAC	Total Number of Dominant
	10	Yes	FACU	Species Across All Strata: 13 (B)
4. Carya ovata		100	17100	Percent of Dominant Species
5		. <u></u>		That Are OBL, FACW, or FAC:69.23076923 (A/B)
6				
7.				Prevalence Index worksheet:
	42	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 21		total cover:	8.4	OBL species 0 x 1 = 0
15	20 /0 01	total cover		FACW species x 2 = 24
Sapling/Shrub Stratum (Plot size: 15)	12	Voo	EACU	FAC species $56$ x 3 = $168$
1. Acer pensylvanicum		Yes	FACU	40 160
2. Acer rubrum	10	Yes	FAC	FACU species $x 4 = $
<sub>3.</sub> Ostrya virginiana	8	Yes	FACU	UPL species x 5 =
4. Nyssa sylvatica	8	Yes	FAC	Column Totals:(A)(B)
5				0.05
				Prevalence Index = B/A =3.25
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$3$ - Prevalence Index is $\leq 3.0^1$
	38	= Total Cove	r	
50% of total cover:19	20% of	total cover:	7.6	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size:5)		_		data in Remarks or on a separate sheet)
1. Pilea fontana	7	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Laportea canadensis	6	Yes	FAC	
	5			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Carex blanda		Yes	FAC	be present, unless disturbed or problematic.
4. Viola sagittata	5	Yes	FAC	Definitions of Four Vegetation Strata:
5. Viola cucullata	5	Yes	FACW	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8			<u> </u>	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
	28	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 14		total cover:		
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1			<u> </u>	
2				
3				
4				Under shortin
5				Hydrophytic Vegetation
•·	-	= Total Cove		Present? Yes <u>V</u> No
50% of total cover:0		total cover:	<u> </u>	
		total cover.		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dep	th needed to docu	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	10YR 4/2	92	10YR 5/8	8	С	PL/M	SCL	rock at 7"
	oncentration, D=Depl	etion, RM=	=Reduced Matrix, M	S=Masked	I Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil								ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	· · ·				2 cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be				148) (	Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Sι	urface (S9)	) <b>(MLRA 1</b>	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		F	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
2 cm Mi	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		\	/ery Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)			Other (Explain in Remarks)
-	ark Surface (A12)		Redox Depre					
Sandy N	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	. , ,	-			licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Florence	•	. ,	•	•	etland hydrology must be present,
-	Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	<b>)</b> ur	less disturbed or problematic.
	Layer (if observed):							
Type: roo								
Depth (in	ches): /						Hydric Soi	I Present? Yes V No
Remarks:								



Photo 1 Wetland data point WPOA402f\_w facing east



Photo 2 Wetland data point WPOA402f\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Pocahontas County	Sampling Date: 5/12/2016				
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa402_u				
Investigator(s): GB, SA	Section, Tov	vnship, Range: <u>No PLSS in this a</u>	rea				
Landform (hillslope, terrace, etc.): slope		ncave, convex, none): <u>concave</u>	Slope (%): <u>30</u>				
Subregion (LRR or MLRA): S Lat: 38.3019885	7	Long: <u>-79.84674168</u>	Datum: WGS 1984				
Soil Map Unit Name:		NWI class	sification: None				
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes	No (If no, explain ir	n Remarks.)				
Are Vegetation, Soil, or Hydrology significan	ntly disturbed?	Are "Normal Circumstances	s" present? Yes 🖌 No				
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any ans	wers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	マ マ マ	Is the Sampled Area within a Wetland?	Yes	No	
Remarks: Upland data point taken adjacent to a s	saturated PFO s	seep we	tland located	on a steep, rocky, concave s	ide slope.		

Primary Indicators (minimum of one is required; check all that apply)
Drift Deposits (B3)        Thin Muck Surface (C7)        Saturation Visible on Aerial Imagery (C9)          Algal Mat or Crust (B4)      Other (Explain in Remarks)      Sturation Visible on Aerial Imagery (C9)          Iron Deposits (B5)      Sturation Visible on Aerial Imagery (B7)      Sturation Visible on Aerial Imagery (B7)          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:
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    Water Table Present? Yes No    Yes No  Depth (inches):   Saturation Present? Yes No    Depth (inches): Wetland Hydrology Present?   Yes No  Depth (inches):   Yes corded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Ves No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:
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 No Mo M
Field Observations:         Surface Water Present?       Yes No _       Depth (inches):         Water Table Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         Saturation Present?       Yes No _       Depth (inches):         Uncludes capillary fringe)       Wetland Hydrology Present?       Yes No _         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:
Surface Water Present? Yes No V   Water Table Present? Yes No V   Saturation Present? Yes No V   Includes capillary fringe) Depth (inches): Wetland Hydrology Present? Yes   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):         (includes capillary fringe)       Wetland Hydrology Present?       Yes No _         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:
Saturation Present?       Yes       No       ✓       Depth (inches):       Wetland Hydrology Present?       Yes       No       ✓         Includes capillary fringe)       Depth (inches):       Includes capillary fringe)       Wetland Hydrology Present?       Yes       No       ✓         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:       Includes       Includes
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:
no hydrology indicators present

Sampling Point: wpoa402\_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?	Status	
1 Robinia pseudoacacia	15	Yes	FACU	Number of Dominant Species
2. Nyssa sylvatica	15	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
3. Acer rubrum	10	Yes	FAC	Total Number of Dominant
	10	Yes	FACU	Species Across All Strata: 10 (B)
4. Pinus strobus	10	Yes	FACU	Percent of Dominant Species
5. Quercus alba			UPL	That Are OBL, FACW, or FAC: 40 (A/B)
6. Quercus montana	5	No		Provedence in decouver dechard
7 <sub>.</sub> Carya glabra	5	No	FACU	Prevalence Index worksheet:
	70	= Total Cove		Total % Cover of:Multiply by:
50% of total cover: 35	20% of	total cover:	14	
Sapling/Shrub Stratum (Plot size:15)				FACW species x 2 =
1. Gaylussacia baccata	15	Yes	FACU	FAC species X 3 =111
2. Acer rubrum	10	Yes	FAC	FACU species X 4 = 308
3. Acer pensylvanicum	10	Yes	FACU	UPL species $5 \times 5 = 25$
4. Carya glabra	4	No	FACU	Column Totals:(A)(A)(B)
5. Pinus strobus	4	No	FACU	
	2	No	FACU	Prevalence Index = B/A =3.73
6. Ostrya virginiana			FACU	Hydrophytic Vegetation Indicators:
7			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				$3$ - Prevalence Index is $\leq 3.0^1$
		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover: 22.5	20% of	total cover:	9	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
<sub>1.</sub> Carex blanda	2	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Uvularia perfoliata	2	Yes	FACU	
3				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4			·	Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6			<u> </u>	more in diameter at breast height (DBH), regardless of
7			<u> </u>	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			<u> </u>	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: 2	20% of	total cover:	0.8	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4			·	Hydrophytic
5	•		<u> </u>	Vegetation Present? Yes No 🖌
50% of total cover: 0		= Total Cove total cover:	~	
50% of total cover: Remarks: (Include photo numbers here or on a separate s		total cover.		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	k Features	5					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	·	Remarks	
0-2	10YR 2/2	100					L			
2-11	10YR 5/6	100					SCL	rock at 11"		
								·		
				·		<u> </u>		·		
								<u></u>		
				·				·		
								<u></u>		
				<u> </u>						
·				. <u> </u>				·		
	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining		•
Hydric Soil	Indicators:						Indic	ators for Pro	blematic Hyd	ric Soils':
Histosol	(A1)		Dark Surface					2 cm Muck (A1	10) <b>(MLRA 14</b>	7)
	pipedon (A2)		Polyvalue Be				148) (	Coast Prairie F	. ,	
Black Hi			Thin Dark Su	• •	•	47, 148)		(MLRA 147	•	
	n Sulfide (A4)		Loamy Gleye	d Matrix (I	-2)		I	Piedmont Floo	dplain Soils (F	19)
	d Layers (A5)		Depleted Mat	. ,				(MLRA 136		
	ıck (A10) <b>(LRR N)</b>		Redox Dark S		,			•	Dark Surface (	TF12)
·	d Below Dark Surface	(A11)	Depleted Dar		. ,		(	Other (Explain	in Remarks)	
	ark Surface (A12)		Redox Depre		,					
-	lucky Mineral (S1) (LF	RR N,	Iron-Mangane		es (F12) <b>(</b> I	LRR N,				
	A 147, 148)		MLRA 130	,			з.			
	Bleyed Matrix (S4)		Umbric Surfa	· · ·				•	Irophytic vege	
	edox (S5)		Piedmont Flo	•	. ,	•	•	•	gy must be pr	
	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR	A 127, 147	) ur	nless disturbed	d or problemat	IC.
	_ayer (if observed):									
Type: roo										
Depth (ind	ches):						Hydric Soi	I Present?	Yes	No 🔽
Remarks:							•			



Photo 1 Upland data point WPOA402\_u facing southeast



# Photo 2 Upland data point WPOA402\_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Po	ocahontas County	_ Sampling Date: 5/10/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wpoa400e_w
Investigator(s):	Section, Towns	ship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): depression		ve, convex, none): <u>concave</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.295</u>	90874	Long: <u>-79.83422159</u>	Datum: WGS 1984
Soil Map Unit Name:		NWI classifi	ication: None
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes <u></u>	_ No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrologysign	ficantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling p	oint locations, transect	s, important features, etc.

		NL	
Hydrophytic Vegetation Present?	Yes 🔽	No	Is the Sampled Area

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes V Yes V Yes V	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:			•			

Artificial seasonally flooded PEM wetland located in an isolated depression on a ridge top at the edge of a 1 acre cleared area surrounded by mature second growth mixed hardwoods; heavy amphibian usage as evidenced by numerous tadpoles, egg masses, and newts; NCWAM key = basin wetland. Clearly excavated as evidenced by adjacent spoil pile; also appears to have been lined with clay to slow permeability.

Wetland Hydrology Indicators	s:		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 So	oils (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 Aeria	Imagery (B7)		✓ Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			<ul> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:			
Surface Water Present?	Yes 🖌 No _	Depth (inches):2	
Water Table Present?	Yes No _	✓ Depth (inches):	
		Depth (inches):0	Wetland Hydrology Present? Yes <u></u> No
, , , ,	n gauge, monito	ring well, aerial photos, previous inspec	itions), if available:
Remarks:			
l			

Sampling Point: wpoa400e\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		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				Percent of Dominant Species
5		<u></u>		That Are OBL, FACW, or FAC:100 (A/B)
6				
7.				Prevalence Index worksheet:
/·	0	Tatal Cause		Total % Cover of: Multiply by:
50% of total cover: 0		= Total Cove	0	OBL species 40 x 1 = 40
15	20% 01	f total cover:		40 00
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $40$ $x = 80$
1				FAC species $x^3 = $
2				FACU species $5   x 4 = 20$
				UPL species 0 x 5 = 0
3				Column Totals: 85 (A) 140 (B)
4				
5		·		Prevalence Index = B/A =1.64
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:0	20% of	f total cover:	0	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Leersia oryzoides	40	Yes	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Poa trivialis	20	Yes	FACW	
		·		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Persicaria lapathifolia	15	No	FACW	be present, unless disturbed or problematic.
4. Galium aparine	5	No	FACU	Definitions of Four Vegetation Strata:
5. Juncus effusus	5	No	FACW	Sommono or roar rogonation or ana
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7		·		height.
8		<u></u>		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.
		<u> </u>		
11	85			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42.5	20% of	f total cover:	17	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3		·		
4		·		Hydrophytic
5				Vegetation
	0	= Total Cove		Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	neet.)			

Profile Des	cription: (Describe to	the dep	oth needed to docum	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix			x Features	S			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 4/1	90	7.5YR 4/6	10	С	PL/M	CL	
6-18	10YR 5/1	65	10YR 5/8	35	С	М	С	
		<u> </u>						
		<u> </u>						
<sup>1</sup> Type: C=C	oncentration, D=Deple	tion. RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil				machea				ators for Problematic Hydric Soils <sup>3</sup> :
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	F2)		I	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>		Redox Dark S		,			Very Shallow Dark Surface (TF12)
·	d Below Dark Surface	(A11)	Depleted Dar		· · ·		0	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre		•			
	Mucky Mineral (S1) (LF	RR N,	Iron-Mangane		es (F12) <b>(</b> I	LRR N,		
	A 147, 148)		MLRA 130			C 400)	31	
	Gleyed Matrix (S4)		Umbric Surfa	· / ·				dicators of hydrophytic vegetation and
	Redox (S5) d Matrix (S6)		Piedmont Flo	•	, ,	•	•	etland hydrology must be present, hless disturbed or problematic.
	Layer (if observed):			ialenai (F		A 127, 147	<b>)</b> ui	liess disturbed of problematic.
Type: Cla								
Depth (in	cnes): <u>-</u>						Hyaric Sol	il Present? Yes 🔽 No
Remarks:								



Photo 1 Wetland data point WPOA400e\_w facing north



Photo 2 Wetland data point WPOA400e\_w facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Pocahontas County	_ Sampling Date: 5/10/2016					
Applicant/Owner: Dominion		State: WV						
Investigator(s): GB, SA	Section, Tow	vnship, Range: <u>No PLSS in this are</u>	ea					
Landform (hillslope, terrace, etc.): ridge shoulder		cave, convex, none): <u>none</u>	•					
Subregion (LRR or MLRA): S Lat: 38.295965	15	Long: <u>-79.834193</u>	Datum: WGS 1984					
Soil Map Unit Name:		NWI classif	ication: None					
Are climatic / hydrologic conditions on the site typical for this time o	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 significa	ntly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No					
Are Vegetation, Soil, or Hydrology naturally	v problematic?	(If needed, explain any answ	ers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	ン ン ン	Is the Sampled Area within a Wetland?	Yes	No	×
Remarks: Upland data point taken at top of ridge shoulder for a seasonally flooded PEM wetland located in an excavated depression.							

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 So	oils (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
Saturation Present? Yes No V Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	

Sampling Point: wpoa400\_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:		
Tree Stratum (Plot size: <u>30</u> )		Species?	Status			
₁ Fraxinus americana	25	Yes	FACU	Number of Dominant Species		
1	15			That Are OBL, FACW, or FAC: (A)		
2. Acer saccharum		Yes	FACU	Total Number of Dominant		
<sub>3.</sub> Prunus serotina	10	No	FACU	Species Across All Strata: 9 (B)		
4. Acer rubrum	5	No	FAC			
5. Carya ovata	5	No	FACU	Percent of Dominant Species		
5. <u>Calya ovala</u>				That Are OBL, FACW, or FAC: (A/B)		
6						
7.				Prevalence Index worksheet:		
	60	= Total Cove	r	Total % Cover of: Multiply by:		
50% of total cover: 30		total cover:	12	OBL species x 1 =		
15	20% 01	total cover.		15 30		
Sapling/Shrub Stratum (Plot size:)				10 20		
1. Acer pensylvanicum	7	Yes	FACU	FAC species $x_3 = $		
<sub>2.</sub> Robinia pseudoacacia	6	Yes	FACU	FACU species x 4 = 496		
3. Fraxinus americana	5	Yes	FACU	UPL species x 5 =0		
	5			140 556		
4. Prunus serotina		Yes	FACU	Column Totals: (A) (B)		
5. Acer saccharum	5	Yes	FACU	Prevalence Index = $B/A = 3.73$		
<sub>6.</sub> Betula lenta	3	No	FACU			
		. <u></u> .		Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
8				2 - Dominance Test is >50%		
9.						
··	31	Tatal Cause		3 - Prevalence Index is ≤3.0 <sup>1</sup>		
		= Total Cove	r 6.2	4 - Morphological Adaptations <sup>1</sup> (Provide supporting		
50% of total cover:15.5	20% of	total cover:	0.2	data in Remarks or on a separate sheet)		
Herb Stratum (Plot size: 5 )						
<sub>1.</sub> Ageratina altissima	15	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2. Alliaria petiolata	15	Yes	FACU			
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
3. Poa trivialis	10	No	FACW	be present, unless disturbed or problematic.		
<sub>4.</sub> Asclepias longifolia	5	No	FAC	Definitions of Four Vegetation Strata:		
<sub>5.</sub> Packera aurea	5	No	FACW	Demitions of Four vegetation Strata.		
6. Viola hirsutula	4			<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or		
		No	FACU	more in diameter at breast height (DBH), regardless o height.		
7. Galium aparine	4	No	FACU			
8.						
9.				Sapling/Shrub – Woody plants, excluding vines, less		
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1		
10		. <u> </u>		m) tall.		
11				Herb – All herbaceous (non-woody) plants, regardless		
	58	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.		
50% of total cover: 29		total cover:		······································		
	2070.01			Woody vine - All woody vines greater than 3.28 ft in		
Woody Vine Stratum (Plot size: 30 )				height.		
1						
2						
3		<u> </u>				
4				Hydrophytic		
5				Vegetation		
	0	= Total Cove	r	Present? Yes No V		
50% of total cover: 0		total cover:	~			
Remarks: (Include photo numbers here or on a separate sl	heet.)					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox	k Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0-4	10YR 3/2	100					SCL	
4-13	10YR 5/4	100					SCL	
13-18	10YR 5/6	100					SCL	
							·	
·								
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup>	':
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	bipedon (A2)		Polyvalue Be	low Surfac	ce (S8) <b>(N</b>	ILRA 147,	148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su				(MLRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	, ,	•		Piedmont Floodplain Soils (F19)	
Stratified	d Layers (A5)		Depleted Mat	rix (F3)	,		(MLRA 136, 147)	
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TF12)	
	d Below Dark Surface	(A11)	Depleted Dar		,		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)			
Sandy M	lucky Mineral (S1) (LF	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(</b> I	LRR N,		
	A 147, 148)		MLRA 130		· / ·			
	Bleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and	Ł
	Redox (S5)		Piedmont Flo	. , .				
	Matrix (S6)		Red Parent M	•	· ,	•	, , ,	
	Layer (if observed):							
Type: <u>no</u>	ne							
	ches):						Hydric Soil Present? Yes No	
Remarks:							-	



Photo 1 Upland data point WPOA400\_u facing north



**Photo 2** Upland data point WPOA400\_u facing east