| Project/Site: Atlantic Coast Pipeline | _ City/County: Pocahontas County Sampling Date: 6/29/2016 |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Applicant/Owner: Dominion | State: <u>WV</u> Sampling Point: wpoe213e_w |
| Investigator(s): CG, SA | _ Section, Township, Range: <u>No PLSS in this area</u> |
| Landform (hillslope, terrace, etc.): drainage | _ocal relief (concave, convex, none): <u>concave</u> Slope (%): <u>15</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.4585654</u> | Long: <u>-80.06285774</u> Datum: WGS 1984 |
| Soil Map Unit Name: Cateache channery silt loam, 35 to 55 percent | slopes, very stony NWI classification: PEM |
| 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 _ | tly disturbed? Are "Normal Circumstances" present? Yes No |
| Are Vegetation, Soil, or Hydrology naturally | problematic? (If needed, explain any answers in Remarks.) |

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

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

| | rs: | Secondary Indicators (minimum of two required) | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Primary Indicators (minimum o | of one is required; c | Surface Soil Cracks (B6) | |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) | 0,,,, | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) | Dry-Season Water Table (C2) |
| Field Observations: | | | |
| Surface Water Present? | | Depth (inches): | |
| Water Table Present? | Yes 🖌 No 🔤 | | |
| | | | |
| Saturation Present? (includes capillary fringe) | Yes 🖌 No _ | Depth (inches):0 | Wetland Hydrology Present? Yes <u>V</u> No |
| (includes capillary fringe) | | Depth (inches): | , , , |

Sampling Point: wpoe213e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|------------|------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | % Cover | Species? | | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | · | |
| | | | | Total Number of Dominant |
| 3 | | <u> </u> | . <u> </u> | 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 | | <u> </u> | Total % Cover of: Multiply by: |
| | | = Total Cove | r O | $\begin{array}{c c} \hline \hline \\ $ |
| 50% of total cover:0 | 20% of | total cover: | 0 | 60 100 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACTV species $x_2 = 15$ |
| 1. none | 0 | | | FAC species $x_3 = $ |
| 2 | | | | FACU species x 4 =0 |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | 90 160 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = B/A =1.77 |
| 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 ¹ |
| | 0 | = Total Cove | r | |
| 50% of total cover:0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Impatiens capensis | 50 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Glyceria striata | 15 | No | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Leersia virginica | 10 | No | FACW | be present, unless disturbed or problematic. |
| 4. Carex lupulina | 10 | No | OBL | |
| 5. Rumex crispus | 5 | No | FAC | Definitions of Four Vegetation Strata: |
| | - | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| 9. | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | | · | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 10 | | | . <u> </u> | |
| <u>11.</u> | | | | 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 | 20% of | total cover: | 18 | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| 1. none | 0 | | | height. |
| | | | <u> </u> | |
| 2 | | | . <u> </u> | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic Vegetation |
| | - | | | Present? Yes <u>V</u> No |
| | | = Total Cove | | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | 1 |
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| Profile Des | cription: (Describe t | o the depth | needed to docun | nent the ir | dicator o | or confirm | the absence | of indicators.) | |
|-----------------|-------------------------------|---------------|-------------------|--------------|-------------------|------------------|---------------|-------------------------------------------------------------------------------|---|
| Depth | Matrix | | Redo | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-6 | 10YR 4/2 | 100 | | | | | SCL | | |
| | | | | | | | | | |
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| 1 | | <u> </u> | | | | | 21 | | |
| Hydric Soil | oncentration, D=Deple | etion, RIVI=R | educed Matrix, Ma | s=IVIasked | Sand Gra | ains. | | L=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ : | |
| - | | | | (0-) | | | | - | |
| Histoso | () | | Dark Surface | . , | (0.0) (1.1) | | | cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | | | | 148) <u> </u> | coast Prairie Redox (A16) | |
| | istic (A3) | | Thin Dark Su | . , | • | 47, 148) | - | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | ·2) | | P | iedmont Floodplain Soils (F19) | |
| | d Layers (A5) | | Depleted Mat | . , | | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | () | Redox Dark S | | , | | | ery Shallow Dark Surface (TF12) | |
| | d Below Dark Surface | (A11) | Depleted Dar | | . , | | 0 | other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | • | , | | | | |
| | /lucky Mineral (S1) (L | RR N, | Iron-Mangane | | s (F12) (| LRR N, | | | |
| | A 147, 148) | | MLRA 13 | | | | 3 | | |
| - | Gleyed Matrix (S4) | | Umbric Surfa | | | | | icators of hydrophytic vegetation and | |
| - | Redox (S5) | | Piedmont Flo | | | | | tland hydrology must be present, | |
| | Matrix (S6) | | Red Parent M | laterial (F2 | (MLR/ | A 127, 147 |) uni | less disturbed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: <u>ro</u> | | | | | | | | | |
| Depth (in | ches): <u>6</u> | | | | | | Hydric Soil | Present? Yes <u>V</u> No | _ |
| Pomarka: | | | | | | | 1 | | |

Remarks:

Auger refusal at 6 inches due to bedrock.



Wetland data point wpoe213e_w facing west



Wetland data point wpoe213e_w facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas County Sampling Date: 6/29/2016 |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Applicant/Owner: Dominion | State: <u>WV</u> Sampling Point: <u>wpoe213_u</u> |
| Investigator(s): CG, SA | Section, Township, Range: <u>No PLSS in this area</u> |
| | cal relief (concave, convex, none): <u>convex</u> Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): N Lat: 38.45873298 | Long: <u>-80.06288372</u> Datum: <u>WGS 1984</u> |
| Soil Map Unit Name: Cateache channery silt loam, 35 to 55 percent sl | opes, very stony NWI classification: UPL |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ar? Yes 🖌 No (If no, explain in Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Are "Normal Circumstances" present? Yes No |
| Are Vegetation, Soil, or Hydrology naturally pro | oblematic? (If needed, explain any answers in Remarks.) |

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

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

| 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 <u><</u> Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |

Sampling Point: wpoe213_u

| te Dominant In <u>rer Species?</u> Yes Yes Yes _ | Status FACU FACU | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 Total Number of Dominant Species Across All Strata: 6 Percent of Dominant Species That Are OBL, FACW, or FAC: 16.666666666 (A) Prevalence Index worksheet: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes Yes | FACU FACU | That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant 6 (B) Percent of Dominant Species 16.666666666 (A/B) Prevalence Index worksheet: |
| Yes Yes | | Total Number of Dominant 6 (A) Total Number of Dominant 6 (B) Percent of Dominant Species 16.6666666666 (A/B) Prevalence Index worksheet: |
| = Total Cove 6 of total cover: | | Species Across All Strata: 6 (B) Percent of Dominant Species 16.666666666 (A/B) Prevalence Index worksheet: |
| = Total Cove 6 of total cover: | | Species Across All Strata: 6 (B) Percent of Dominant Species 16.666666666 (A/B) Prevalence Index worksheet: |
| = Total Cove 6 of total cover: | | Percent of Dominant Species That Are OBL, FACW, or FAC: 16.666666666 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: |
| = Total Cove 6 of total cover: | | That Are OBL, FACW, or FAC: 16.666666666 (A/B) Prevalence Index worksheet: |
| = Total Cove 6 of total cover: | | Prevalence Index worksheet: |
| = Total Cove 6 of total cover: | | Total % Cover of: Multiply by: |
| = Total Cove 6 of total cover: | | Total % Cover of: Multiply by: |
| 6 of total cover: | | |
| 6 of total cover: | | |
| | 15 | OBL species 0 x 1 = 0 |
| N/ | | 0 |
| × . | | FACW species $x 2 = $ |
| Yes | FACU | FAC species 40 x 3 = 120 |
| Yes | FACU | FACU species 135 x 4 = 540 |
| 100 | 17.00 | |
| | | UPL species $0 \times 5 = 0$ |
| | | Column Totals: (A) (B) |
| | | |
| | | Prevalence Index = B/A =3.77 |
| | | Hydrophytic Vegetation Indicators: |
| | | |
| | | 1 - Rapid Test for Hydrophytic Vegetation |
| | <u> </u> | 2 - Dominance Test is >50% |
| | | 3 - Prevalence Index is ≤3.0 ¹ |
| = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 6 of total cover: | 9 | |
| | | data in Remarks or on a separate sheet) |
| Voc | EAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | |
| Yes | FACU | |
| | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | be present, unless disturbed or problematic. |
| | | Definitions of Four Vegetation Strata: |
| | | |
| | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | more in diameter at breast height (DBH), regardless of height. |
| | | neight. |
| | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | m) tall. |
| | | |
| | | Herb – All herbaceous (non-woody) plants, regardless |
| | | of size, and woody plants less than 3.28 ft tall. |
| 6 of total cover: | 11 | Mandussing All was during a support of them 2,00 ft in |
| | | Woody vine – All woody vines greater than 3.28 ft in height. |
| | | |
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| | | |
| | | Hydrophytic |
| | | Vegetation |
| = Total Cove | r | Present? Yes No V |
| of total cover: | 0 | |
| | | |
| | | |
| | = Total Cove of total cover: | = Total Cover 9 = Total Cover 9 Yes FAC Yes FACU FACU = Total Cover 11 = Total Cover = Total Cover |

| Profile Desc | ription: (Describe te | o the depth n | eeded to docur | nent the ir | ndicator of | or confirm | the absence of indica | ators.) | | | |
|-------------------------|-------------------------|---------------|------------------|---------------|-------------------|------------------|-----------------------------------|-----------------------------------------|--|--|--|
| Depth | Matrix | | Redo | x Features | | | | | | | |
| (inches) | Color (moist) | % (| Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | | | |
| | | | | | | | | | | | |
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| | | | | | | <u> </u> | | | | | |
| ¹ Type: C=Co | ncentration, D=Deple | etion, RM=Red | duced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Li | ining, M=Matrix. | | | |
| Hydric Soil I | ndicators: | | | | | | Indicators for | Problematic Hydric Soils ³ : | | | |
| Histosol | (A1) | _ | Dark Surface | e (S7) | | | 2 cm Muck | (A10) (MLRA 147) | | | |
| Histic Ep | ipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (M | ILRA 147, | | rie Redox (A16) | | | |
| Black His | | | Thin Dark Su | | | | | 147, 148) | | | |
| Hydroge | n Sulfide (A4) | | Loamy Gleye | | | | | Floodplain Soils (F19) | | | |
| | Layers (A5) | | Depleted Ma | | , | | (MLRA 136, 147) | | | | |
| | ck (A10) (LRR N) | _ | Redox Dark | | 6) | | • | ow Dark Surface (TF12) | | | |
| | Below Dark Surface | (A11) | Depleted Dar | | , | | | lain in Remarks) | | | |
| - | rk Surface (A12) | . , _ | Redox Depre | | | | | · · · · · · · · · · · · · · · · · · · | | | |
| | ucky Mineral (S1) (L | RR N. | Iron-Mangan | | , | LRR N. | | | | | |
| - | . 147, 148) | | MLRA 13 | | · · · · · / · | , | | | | | |
| | leyed Matrix (S4) | | Umbric Surfa | | MLRA 13 | 6, 122) | ³ Indicators of | hydrophytic vegetation and | | | |
| | edox (S5) | - | Piedmont Flo | | | | | rology must be present, | | | |
| - | Matrix (S6) | | Red Parent N | | | | | rbed or problematic. | | | |
| | ayer (if observed): | | | natorial (i 1 | | | | | | | |
| | | | | | | | | | | | |
| Type: | | | | | | | | · · · · · · | | | |
| Depth (inc | hes): | | | | | | Hydric Soil Present | ? Yes No | | | |
| Remarks: | | | | | | | | | | | |

No soil pit due to restrictive road layer



Upland data point wpoe213_u facing east



Upland data point wpoe213_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | Sampling Date: 10/3/2016 |
|------------------------------------------------------------------|----------------------------|--------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy013e_w |
| Investigator(s): KO, SA | Section, Township | o, Range: <u>No PLSS</u> in this are | a |
| Landform (hillslope, terrace, etc.): Bench | | convex, none): <u>concave</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): N Lat: 38. | 42831524 | Long: <u>-80.05358328</u> | Datum: WGS 1984 |
| Soil Map Unit Name: Cateache channery silt loam, 3 to 15 | percent slopes, very stony | NWI classifie | cation: PEM |
| Are climatic / hydrologic conditions on the site typical for thi | s time of year? Yes I | No (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrologys | significantly disturbed? | Are "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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|----------------------|---------------------------------------|-------|----|
| Remarks: | | | | | | |
| Wetland data point taken in active pastur | e with o | disturbe | ed vegetation due to | grazing. | | |
| | | | | | | |
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| | | | | | | |

| 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | ils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <u>V</u> No Depth (inches): 4 | |
| | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | Wetland Hydrology Present? Yes <u>V</u> No |

Sampling Point: Wpoy013e_w

| | Absolute | Dominant I | adicator | Dominance Test worksheet: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1 none | 0 | 000000 | Olalao | 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 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | | | | Total % Cover of: Multiply by: |
| | 0 | = Total Cove | r | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| 0 | | | | FACW species x 2 =50 |
| Sapling/Shrub Stratum (Plot size: 0) | 0 | | | FAC species 0 x 3 = 0 |
| 1. none | 0 | | | |
| 2 | | | | FACU species $x 4 = $ |
| | | | | UPL species x 5 =0 |
| 3 | | | | 100 125 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence index $= B/A = 1.25$ |
| | | | | |
| 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 ¹ |
| | 0 | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| Persicaria hydropiper | 50 | N/s s | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| •• | 50 | Yes | OBL | |
| _{2.} Echinochloa muricata | 20 | Yes | FACW | |
| 3. Bidens laevis | 20 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4. Juncus effusus | 5 | No | FACW | Definitions of Four Vegetation Strata: |
| Electric de la characteria | | | | Deminitions of Four vegetation Strata. |
| _{5.} Eleocharis palustris | 5 | No | OBL | Demittons of Four Vegetation Strata. |
| | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 5. Eleocharis palustris 6 | | | OBL | |
| | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 7 | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. |
| 6 7 8 | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less |
| 6 7 | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 6 7 8 | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less |
| 6 7 8 9 10 | | | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 6 7 8 9 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless |
| 6 7 8 9 10 11 | | = Total Cove | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 6 7 8 9 10 11 50% of total cover: 50 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 6 7 8 9 10 11 | | = Total Cove | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 6 6 7 8 9 10 11 50% of total cover: 50 <u>Woody Vine Stratum</u> (Plot size: 0) | | = Total Cove | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 6 6 7 8 9 10 11 50% of total cover: 50 <u>Woody Vine Stratum</u> (Plot size: 0) 1) 1) | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 6 6 7 8 9 10 11 50% of total cover: 50 <u>Woody Vine Stratum</u> (Plot size: 0) | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 6 | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 6 | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 6 6 7 8 9 10 11 50% of total cover: 50% of total cover: 50 <u>Woody Vine Stratum</u> (Plot size:) 1) 1 2 3 4 | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 6 | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 6 7 8 9 10 11 50% of total cover: 50% of total cover: 50 <u>Woody Vine Stratum</u> (Plot size:) 1) 1 2 3 4 | | = Total Cove total cover:_ | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 6 | | = Total Cove total cover:_ | r 20 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |

| Profile Des | cription: (Describe t | o the de | pth needed to docun | nent the | indicator of | or confirn | n the absence of indicators.) | |
|------------------------|-----------------------|-----------|----------------------|-----------|---------------------|------------------|-------------------------------------------------------|---|
| Depth | Matrix | | | x Feature | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-4 | 7.5YR 4/2 | 90 | 7.5YR 3/4 | 10 | С | Μ | SIC | |
| 4-12 | 7.5YR 5/2 | 90 | 5YR 4/6 | 10 | С | М | SIC | |
| 12-18 | 7.5YR 6/2 | 85 | 7.5YR 4/6 | 15 | С | М | SIC | |
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| | | | | | | | | |
| ¹ Type: C=C | Concentration, D=Depl | etion, RM | I=Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ | : |
| Histoso | ol (A1) | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| | Epipedon (A2) | | Polyvalue Be | · · · | ce (S8) (N | ILRA 147. | | |
| | listic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | • | , . | ,, | Piedmont Floodplain Soils (F19) | |
| | ed Layers (A5) | | ✓ Depleted Mat | | (• =) | | (MLRA 136, 147) | |
| | luck (A10) (LRR N) | | Redox Dark S | . , | -6) | | Very Shallow Dark Surface (TF12) | |
| | ed Below Dark Surface | e (A11) | Depleted Dar | | | | Other (Explain in Remarks) | |
| | Dark Surface (A12) | () | Redox Depre | | . , | | | |
| Sandy | Mucky Mineral (S1) (L | RR N, | Iron-Mangane | ese Mass | es (F12) (I | LRR N. | | |
| - | A 147, 148) | , | MLRA 13 | | · / · | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | (MLRA 13 | 6, 122) | ³ Indicators of hydrophytic vegetation and | I |
| | Redox (S5) | | Piedmont Flo | . , | • | | | |
| Strippe | d Matrix (S6) | | Red Parent M | • | . , | • | | |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Present? Yes 🖌 No | _ |
| Remarks: | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Wetland data point wpoy013e_w facing east



Wetland data point wpoy013e_w facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | Sampling Date: 10/3/2016 |
|-----------------------------------------------------------------|----------------------------|---------------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy013_u |
| Investigator(s): KO, SA | Section, Township | o, Range: <u>No PLSS in this area</u> | 1 |
| Landform (hillslope, terrace, etc.): Bench | | convex, none): <u>convex</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38</u> . | 42834818 | Long: <u>-80.05366428</u> | Datum: WGS 1984 |
| Soil Map Unit Name: Cateache channery silt loam, 3 to 15 | percent slopes, very stony | NWI classific | ation: UPLAND |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes I | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" p | oresent? Yes No _ |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any answe | rs in Remarks.) |
| | | | |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes Yes Yes | No No No | レ レ レ | Is the Sampled Area within a Wetland? | Yes | No | <u> </u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|----------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |
| Upland data point taken in active pasture | re with disturbe | ed vegeta | ation due to g | grazing. | | | |
| | | | | | | | |
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| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) |
| Aquatic Fauna (B13) Field Observations: | FAC-Neutral Test (D5) |
| Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): (includes capillary fringe) No V Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | Wetland Hydrology Present? Yes No |
| Remarks: | |

Sampling Point: Wpoy013_u

| | | | | <u></u> |
|---------------------------------------------------------|---------------|----------------|--------|---------------------------------------------------------------------------------------------------------------|
| | Absolute | | | Dominance Test worksheet: |
| Tree Stratum (Plot size: 0) | | Species? | Status | Number of Dominant Species |
| 1, none | 0 | <u> </u> | | That Are OBL, FACW, or FAC:1 (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 3 (B) |
| Λ | | • | | , |
| 4 | | · | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: <u>33.33333333</u> (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| ·· | 0 | · · | | Total % Cover of: Multiply by: |
| | | = Total Cover | | |
| 50% of total cover:0 | 20% of | f total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size:0) | | | | FACW species x 2 =0 |
| 1. none | 0 | | | FAC species 15 x 3 = 45 |
| | | | | 65 260 |
| 2 | | | | FACU species $x = 75$ |
| 3 | | | | UPL species X 5 = |
| | | | | Column Totals: (A) (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =4 |
| 6 | | | _ | |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | | | 2 - Dominance Test is >50% |
| 9 | 0 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | f total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| 1. Dactylis glomerata | 25 | Yes | EACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | FACU | |
| 2. Solidago rugosa | 15 | Yes | FAC | |
| 3. Symphyotrichum ericoides | 15 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Daucus carota | 10 | No | UPL | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5. Achillea millefolium | 10 | No | FACU | |
| 6. Trifolium pratense | 10 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| ··· | 5 | | UPL | more in diameter at breast height (DBH), regardless of |
| 7. Plantago lanceolata | | No | | height. |
| _{8.} Solanum carolinense | 5 | No | FACU | |
| 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 berbasseus (non weady) planta regardless |
| | 95 | = Total Cover | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 47.5 | | | | |
| | <u>20%</u> 01 | f total cover: | 19 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size:0) | | | | height. |
| 1. none | 0 | | | |
| | | · · | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cover | • | Present? Yes No |
| 50% of total cover: 0 | | | | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe to | o the depth | needed to docum | nent the in | dicator o | or confirm | the absence of indicate | ors.) |
|--------------|------------------------------------------------------|-------------|------------------------|-------------|-------------------|--------------------|-------------------------------------|---------------------------------------|
| Depth | Matrix | | | x Features | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-14 | 7.5YR 3/4 | 100 | | | | | SIC | |
| 14-18 | 7.5YR 4/4 | 100 | | | | | SIC | |
| · | | | | | | | | |
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| | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lini | |
| Hydric Soil | Indicators: | | | | | | Indicators for P | oblematic Hydric Soils ³ : |
| Histosol | · · / | | Dark Surface | () | | | | A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | • | () |
| | stic (A3) | | Thin Dark Su | . , | • | 47, 148) | (MLRA 14 | |
| | en Sulfide (A4) | | Loamy Gleye | • | 2) | | | oodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mar | . , | | | (MLRA 13 | |
| | uck (A10) (LRR N) | (| Redox Dark | | , | | | / Dark Surface (TF12) |
| · | d Below Dark Surface | (A11) | Depleted Dar | | . , | | Other (Expla | in in Remarks) |
| | ark Surface (A12) | | Redox Depre | • • | , | | | |
| | /lucky Mineral (S1) (Ll \ 147, 148) | KK N, | Iron-Mangan MLRA 13 | | S (F12) (| _RR N, | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | , | AI PA 13 | 6 122) | ³ Indicators of h | ydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | · / · | | | | logy must be present, |
| | Matrix (S6) | | Red Parent N | • | , , | • | • • | ed or problematic. |
| | Layer (if observed): | | | | | . 12 7, 147 | | |
| Type: | | | | | | | | |
| <u> </u> | -h). | | | | | | Ukuduja Caji Duasaut? | |
| | ches): | | | | | | Hydric Soil Present? | Yes No |
| Remarks: | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Upland data point wpoy013_u facing west



Upland data point wpoy013_u facing north

| Project/Site: Atlantic Coast Pipeline | City/Cour | nty: Pocahontas County | _ Sampling Date: 8/25/2016 |
|-------------------------------------------------|---------------------------------------|-----------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa422s_w |
| Investigator(s):GB, AS | Section, | Township, Range: No PLSS in this are | ea |
| Landform (hillslope, terrace, etc.): depression | | (concave, convex, none): <u>concave</u> | |
| Subregion (LRR or MLRA): <u>N</u> | | | |
| Soil Map Unit Name: | | NWI classif | fication: PSS |
| Are climatic / hydrologic conditions on the si | te typical for this time of year? Yes | No (If no, explain in | Remarks.) |
| Are Vegetation 🔽, Soil 🖌 , or Hyd | ology significantly disturbed | 1? Are "Normal Circumstances" | ' present? Yes 🔽 No |
| Are Vegetation, Soil, or Hyd | ology naturally problematic | ? (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attac | h site map showing sampl | ing point locations, transect | s, important features, etc. |
| Hydrophytic Vegetation Present? | ∕es_✔_No | the Compled Area | |

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

Semi-permanently flooded to saturated PSS wetland located in a network of interconnected swales and depressions in an active cattle pasture; existing dirt road crosses wetland twice - no culverts present - boulder and cobble crossings; intermittent stream spoa442 flows through wetland; severely trampled by livestock.

| 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) <u>Y</u> 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 (C | 6) 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 <u> Ves</u> No Depth (inches): 2 | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wet (includes capillary fringe) | land Hydrology Present? Yes <u> </u> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) | , if available: |
| | |
| Remarks: | |
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Sampling Point: wpoa422s_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: 4 (A) |
| | | · | | |
| 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> | | |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | Total Cava | | Total % Cover of: Multiply by: |
| | | = Total Cove | r 0 | OBL species 20 x 1 = 20 |
| 50% of total cover:0 | 20% of | total cover: | | 115 000 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x = $ |
| 1. Salix lucida | 35 | Yes | FACW | FAC species $0 	 x 3 = 0$ |
| 2 Rosa multiflora | 4 | No | FACU | FACU species4 x 4 =16 |
| 2 | | | 1700 | 0 |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals:139 (A)266 (B) |
| | | · | | |
| 5 | | · | | Prevalence Index = B/A =1.91 |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | . <u></u> | | ✓ 2 - Dominance Test is >50% |
| 9. | | | | |
| | 39 | = Total Cove | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 19.5 | | | 7.8 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | 1.0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Leersia virginica | 35 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Juncus effusus | 20 | Yes | FACW | |
| | | · | | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Carex lupulina | 20 | Yes | OBL | be present, unless disturbed or problematic. |
| Agrostis gigantea | 15 | No | FACW | |
| 5. Eupatorium perfoliatum | 10 | No | | Definitions of Four Vegetation Strata: |
| 5. <u></u> | 10 | INO | FACW | \mathbf{T}_{resc} (Massimultants such that $(2, 0, 1)$ (7, 0, 1) |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | · | | neight. |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | | | , , |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | • | | | height. |
| 1. none | 0 | · | | |
| 2 | | | | |
| | | | | |
| 3 | | · | | |
| 4 | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | | = Total Cove | - | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | | | • | |
| 50% of total cover: 0 | 20% 01 | total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
| | | | | |
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| Profile Des | cription: (Describe to | the dep | th needed to docum | nent the i | ndicator | or confirm | the absence | of indicato | ors.) | | |
|-------------|-------------------------------|---------|----------------------------------|-------------|---------------------|------------------|-----------------------------------------|-----------------|-----------------|-------------------------|--|
| Depth | Matrix | | Redox | K Feature | s | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | | |
| 0-3 | 7.5YR 3/1 | 100 | | | | | SIL | | | | |
| 3-18 | 7.5YR 4/1 | 85 | 5YR 4/6 | 15 | С | PL/M | SICL | | | | |
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| | oncentration, D=Deple | tion DM | - Boducod Motrix, MS | Mookoo | | ino | ² Location: D | | ng, M=Matrix. | | |
| Hydric Soil | | | =Reduced Matrix, Mo | | I Sanu Gra | 1115. | | | oblematic Hy | dric Soils ³ | |
| Histoso | | | Dark Surface | (97) | | | | | (MLRA 14 | | |
| | pipedon (A2) | | Polyvalue Bel | | ce (S8) (N | II RA 147 | | | Redox (A16) | | |
| | istic (A3) | | Thin Dark Su | | | | 140, <u> </u> | (MLRA 14 | | | |
| | en Sulfide (A4) | | Loamy Gleye | . , | • | ,, | Р | • | odplain Soils (| F19) | |
| | d Layers (A5) | | Depleted Mat | | , | | | (MLRA 136, 147) | | | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark S | Surface (F | -6) | | Very Shallow Dark Surface (TF12) | | | | |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface | (F7) | | Other (Explain in Remarks) | | | | |
| Thick D | ark Surface (A12) | | Redox Depres | ssions (F | 8) | | | | | | |
| | Mucky Mineral (S1) (Ll | RR N, | Iron-Mangane | | es (F12) (I | _RR N, | | | | | |
| | A 147, 148) | | MLRA 136 | , | | | 2 | | | | |
| | Gleyed Matrix (S4) | | Umbric Surface | | • | | | | /drophytic vege | | |
| - | Redox (S5) | | Piedmont Flo | • | . , | • | , , , , , , , , , , , , , , , , , , , , | | | | |
| | d Matrix (S6) | | Red Parent N | laterial (F | 21) (MLR | A 127, 147 | ') un | less disturbe | ed or problema | itic. | |
| | Layer (if observed): | | | | | | | | | | |
| Туре: | | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil | Present? | Yes 🔽 | No | |
| Remarks: | | | | | | | • | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |



Wetland data point wpoa422s_w road crossing facing east



Wetland data point wpoa422s_w facing north



Wetland data point wpoa422s_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: <u>8/25/2016</u> | | |
|------------------------------------------------------|----------------------------------|-------------------------------|---------------------------------|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa422_u | | |
| Investigator(s): GB, AS | Section, Townshi | p, Range: No PLSS in this are | | | |
| Landform (hillslope, terrace, etc.): slope | | , convex, none): <u>none</u> | • | | |
| Subregion (LRR or MLRA): <u>N</u> | _ Lat: <u>38.4182919</u> | Long: <u>-80.05152767</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classi | fication: UPLAND | | |
| Are climatic / hydrologic conditions on the site typ | bical for this time of year? Yes | No (If no, explain in | Remarks.) | | |
| Are Vegetation, Soil, or Hydrolog | y significantly disturbed? | Are "Normal Circumstances" | ' present? Yes 🖌 No | | |
| Are Vegetation, Soil, or Hydrolog | y naturally problematic? | (If needed, explain any answ | vers in Remarks.) | | |
| SUMMARY OF EINDINGS Attach | ite man chowing compling no | int locations transport | a important factures ato | | |

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> | Is the Sampled Area within a Wetland? | Yes | No | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------|---------------------------------------|-----|----|--|--|--|
| Remarks: | | | | | | | | |
| Upland data point taken on a gentle slope above a semi-permanently to saturated PSS wetland located in a network of interconnected swales and depressions. | | | | | | | | |

| 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 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 Sc | 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) | 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> (includes capillary fringe) </u> | Wetland Hydrology Present? Yes No/ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | tions), if available: |
| | |
| Remarks: | |
| no hydrology indicators present | |
| | |
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Sampling Point: wpoa422_u

| | Abaabata | • Density of the | .P t | Deminence Test werkelset |
|---------------------------------------------------------|------------|-------------------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | Absolute % | Dominant Ir Species? | Status | Dominance Test worksheet: |
| Prunus serotina | 6 | Yes | FACU | Number of Dominant Species That Are OBL EACW or EAC: 0 (A) |
| 1 | | | | That Are OBL, FACW, or FAC: (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: (A/B) |
| 6 | | | <u> </u> | Prevalence Index worksheet: |
| 7 | | | | |
| | 6 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: <u>3</u> | | f total cover: | 1.2 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | <u> </u> | FACW species $\begin{array}{c} 0 \\ x 2 = \end{array}$ |
| Rosa multiflora | 15 | Yes | FACU | FAC species 10 x 3 = 30 |
| · | | · · | 1700 | 101 404 |
| 2. Elaeagnus umbellata | 5 | Yes | | FACU species 10^{1} x 4 = 40^{4} |
| 3 | | | | UPL species X 5 = |
| 4. | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =4 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8. | | | | |
| | | | | 2 - Dominance Test is >50% |
| 9 | 15 | · · | <u> </u> | 3 - Prevalence Index is ≤3.0 ¹ |
| 10 | | = Total Cover | 4 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:10 | 20% of | f total cover: | - | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| _{1.} Schedonorus arundinaceus | 45 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Dactylis glomerata | 15 | Yes | FACU | |
| 3. Solidago rugosa | 10 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| | | · · | | be present, unless disturbed or problematic. |
| 4. Plantago lanceolata | 10 | No | UPL | Definitions of Four Vegetation Strata: |
| _{5.} Solanum carolinense | 10 | No | FACU | |
| 6. Trifolium repens | 5 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7. Trifolium fragiferum | 5 | No | FACU | more in diameter at breast height (DBH), regardless of |
| 7 | | | 17.00 | height. |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | · · | | |
| 11 | 100 | · · | <u> </u> | Herb – All herbaceous (non-woody) plants, regardless |
| F0 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | f total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | |
| 2 | | · · | <u> </u> | |
| | | | | |
| 3 | | · · | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | | = Total Cover | | Present? Yes No |
| 50% of total cover:0 | | f total cover | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docur | nent the in | ndicator | or confirm | the absence | of indicato | rs.) | |
|------------------------|------------------------------------------|------------|-------------------------|--------------|---------------------|------------------|----------------------------------|---------------|---------------------|---------------------------|
| Depth | Matrix | | | x Features | 4 | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type' | Loc ² | Texture | | Remarks | |
| 0-6 | 7.5YR 3/3 | 100 | | | | | SCL | | | |
| 6-13 | 7.5YR 4/3 | 100 | | | | | SCL | rock at 13 | | |
| | | | | | | | | | | |
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| ¹ Tvpe: C=C | concentration, D=Depl | etion. RM= | Reduced Matrix. M | S=Masked | Sand Gra | ains. | ² Location: F | PL=Pore Linii | ng, M=Matrix. | |
| | Indicators: | | , , , , , | | | | | | oblematic Hy | dric Soils ³ : |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | 2 | 2 cm Muck (A | A10) (MLRA 1 | 47) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (N | ILRA 147, | 148) (| Coast Prairie | Redox (A16) | |
| Black H | listic (A3) | | Thin Dark Sι | rface (S9) | (MLRA 1 | 47, 148) | | (MLRA 14 | 7, 148) | |
| Hydrog | en Sulfide (A4) | | Loamy Gleye | ed Matrix (F | -2) | | Piedmont Floodplain Soils (F19) | | | |
| | d Layers (A5) | | Depleted Ma | . , | | | (MLRA 136, 147) | | | |
| | uck (A10) (LRR N) | | Redox Dark | • | , | | Very Shallow Dark Surface (TF12) | | | |
| | d Below Dark Surface | e (A11) | Depleted Da | | | | | Other (Explai | n in Remarks |) |
| | ark Surface (A12) | | Redox Depre | | | | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | | | |
| | A 147, 148) Gleyed Matrix (S4) | | MLRA 13 Umbric Surfa | • | MI DA 12 | 6 100) | ³ Inc | diactors of h | drophytic veg | latation and |
| | Redox (S5) | | Piedmont Flo | | | | | | logy must be p | |
| | d Matrix (S6) | | Red Parent N | • | . , | • | • | • | ed or problem | |
| | Layer (if observed): | | | | | | , u | | | |
| Type: ro | | | | | | | | | | |
| | nches): <u>13</u> | | | | | | Hydric Soi | l Procont? | Yes | No 🖌 |
| | | | | | | | Tryunc 30 | 1116361111 | 163 | 110 |
| Remarks: | | | | | | | | | | |
| 1 | | | | | | | | | | |



Upland data point wpoa422_u facing north



Upland data point wpoa422_u facing west

| Project/Site: Atlantic Coast Pipeline | _ City/County: | Pocahontas County | _ Sampling Date: <u>8/23/2016</u> |
|------------------------------------------------------------------------------|----------------|------------------------------------------|-----------------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa421e_w |
| Investigator(s): GB, AS | _ Section, Tow | nship, Range: <u>No PLSS in this are</u> | |
| | | cave, convex, none): <u>concave</u> | Slope (%): <u>4</u> |
| Subregion (LRR or MLRA): N Lat: 38.41845784 | | Long: <u>-80.05021782</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | fication: PEM |
| Are climatic / hydrologic conditions on the site typical for this time of ye | /ear?Yes | No (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | y disturbed? | Are "Normal Circumstances" | ' present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | roblematic? | (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g 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 wetland located in a syst | em of i | ntercon | nected swales and d | enressions in an active cattle | nasture | | |
| | | liercon | | | pasture | | |

| 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 Roo | ts (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (| (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| 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>v</u> No <u>Depth (inches)</u> W (includes capillary fringe) | etland Hydrology Present? Yes <u> </u> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | s), if available: |
| | |
| Remarks: | |
| | |
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| | |

Sampling Point: wpoa421e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|----------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | | | Demont of Deminent Creation |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B) |
| | | | | |
| 6 | | | | Prevalence Index worksheet: |
| 7 | 0 | | | Total % Cover of: Multiply by: |
| | | = Total Cove | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $x^2 = 100$ |
| 1. Salix lucida | 10 | Yes | FACW | FAC species x 3 = |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| | | | | UPL species 0 x 5 = 0 |
| 3 | | | | 105 185 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = B/A =1.76 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | ✓ 3 - Prevalence Index is ≤3.0 ¹ |
| | 10 | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 5 | 20% of | total cover: | 2 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| Leersia virginica | 20 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Juncus effusus | 20 | Yes | FACW | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex lupulina | 20 | Yes | OBL | be present, unless disturbed or problematic. |
| 4. Agrostis gigantea | 15 | No | FACW | Definitions of Four Vegetation Strata: |
| 5. Eupatorium perfoliatum | 15 | No | FACW | Deminions of Four Vegetation Otrata. |
| 6 Mimulus alatus | 5 | No | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 0 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| 11. | | | | |
| | 95 | | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 47.5 | | = Total Cove | | or size, and woody plants less than 3.26 it tall. |
| | 20% of | total cover: | 10 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate si | heet.) | | | |
| | , | | | |
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| Profile Desc | cription: (Describe t | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence of indicato | rs.) |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|----------------------------------------|---------------------------------------------------------------------------------|
| Depth | Matrix | | | x Feature | S | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-3 | 7.5YR 3/1 | 97 | 5YR 4/6 | 3 | С | PL/M | SIL | |
| 3-10 | 7.5YR 4/2 | 88 | 5YR 4/6 | 12 | С | PL/M | SIL | |
| 10-18 | 7.5YR 2.5/1 | 100 | | | | | SIL | |
| | | | | | | | | |
| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, MS | S=Maske | d Sand Gra | ains. | ² Location: PL=Pore Linir | ng, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | oblematic Hydric Soils ³ : |
| Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da | i (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L | . , | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark S Depleted Dar Redox Depres Iron-Mangan | low Surfa Inface (S9 ed Matrix (trix (F3) Surface (I rk Surface essions (F |) (MLRA 1 (F2) =6) ∋ (F7) (8) | 47, 148) | (MLRA 147 Piedmont Flo (MLRA 136 | Redox (A16) 7, 148) odplain Soils (F19) 6, 147) Dark Surface (TF12) |
| - | A 147, 148) | KK N, | MLRA 13 | | es (F12) (| LKK N, | | |
| Sandy G | Gleyed Matrix (S4) | | Umbric Surfa | , , | • | | • | drophytic vegetation and |
| | Redox (S5) d Matrix (S6) | | Piedmont Flo | • | . , | • | | ogy must be present, ed or problematic. |
| | Layer (if observed): | | | naterial (r | | A 127, 147 | | |
| Type: no | | | | | | | | |
| | ches): | | | | | | Hydric Soil Present? | Yes 🖌 No |
| Remarks: | | | | | | | 1 | _ |



Wetland data point wpoa421e_w facing north



Wetland data point wpoa421e_w facing south



Wetland data point wpoa421e_w road crossing facing east

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | Sampling Date: 8/23/2016 | | | | | |
|-------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|---------------------------|--|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa421_u | | | | | |
| Investigator(s): GB, AS | Section, Tow | Section, Township, Range: No PLSS in this area | | | | | | |
| Landform (hillslope, terrace, etc.): slope | | cave, convex, none): <u>none</u> | Slope (%): <u>7</u> | | | | | |
| Subregion (LRR or MLRA): N Lat: 38.418463 | 851 | Long: <u>-80.05040369</u> | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | | NWI classi | ication: UPLAND | | | | | |
| Are climatic / hydrologic conditions on the site typical for this time c | of year? Yes 📕 | No (If no, explain in | Remarks.) | | | | | |
| Are Vegetation, Soil, or Hydrology significa | antly disturbed? | Are "Normal Circumstances' | present? Yes 🖌 No | | | | | |
| Are Vegetation, Soil, or Hydrology naturally | y 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 | ✓ ✓ ✓ | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------|----------------|---------------|---------------------------------------|---------------|--------------|
| Remarks: Upland data point taken on a slope abo | ove a saturated I | PEM we | tland located | l in a system of interconnect | ed swales and | depressions. |

| 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) Drainage Patterns (B10) Roots (C3) Moss Trim Lines (B16) 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): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) No ✓ | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring weil, aenai photos, previous inspec | |

Sampling Point: wpoa421_u

| · · · · · · · · · · · · · · · · · | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|----------------------------------------------------------|----------|----------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| Prunus serotina | 5 | Yes | FACU | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| | | · | | |
| 2 | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata:4 (B) |
| 4 | | . <u> </u> | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: ²⁵ (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | 5 | | | Total % Cover of: Multiply by: |
| 500 (()) 25 | | = Total Cove | r 1 | OBL species 0 x 1 = 0 |
| 50% of total cover: <u>2.5</u> | 20% of | f total cover: | <u> </u> | 0 |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species 0 $x = 0$ |
| 1. Rosa multiflora | 10 | Yes | FACU | FAC species $x_3 = 200$ |
| 2 | | | | FACU species $x 4 = $ |
| 3 | | | | UPL species $5 \times 5 = 25$ |
| | | | | Column Totals: (A) (A) (B) |
| 4 | | | | |
| 5 | | · | | Prevalence Index = $B/A = 3.77$ |
| 6 | | . <u> </u> | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 9 | | | | 2 - Dominance Test is >50% |
| - 5 | 10 | Tatal Cause | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 5 | | = Total Cove | r 2 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 01 | f total cover: | | data in Remarks or on a separate sheet) |
| | o | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Schedonorus arundinaceus | 35 | Yes | FACU | |
| 2. Solidago rugosa | 30 | Yes | FAC | 1 |
| 3. Cirsium arvense | 10 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4 Solanum carolinense | 10 | No | FACU | |
| 5. Plantago lanceolata | 5 | No | UPL | Definitions of Four Vegetation Strata: |
| · | 5 | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Trifolium fragiferum | 5 | No | FACU | more in diameter at breast height (DBH), regardless of |
| 7 | | . <u> </u> | | height. |
| 8 | | | | |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | | | , |
| 11 | 95 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 47.5 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: <u>47.5</u> | 20% of | f total cover: | 19 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| 3. | | | | |
| | | | | |
| 4 | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cove | | Present? Yes No |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate sl | neet.) | | | |
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| Profile Desc | ription: (Describe to | the depth | needed to docun | nent the indi | icator o | or confirm | the absence | of indicato | ors.) | |
|--------------|-------------------------------------|--------------|-------------------|---------------|-------------------|----------------------|--------------------------|--------------|------------------|----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | <u>%</u> T | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-6 | 7.5YR 3/3 | 100 | | | | | SCL | | | |
| 6-14 | 7.5YR 4/4 | 100 | | | | | SCL | rock at 14 | | |
| | | | | | | | | | | |
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| | | <u> </u> | | <u> </u> | | · | <u> </u> | | | |
| | oncentration, D=Deple | etion, RM=Re | educed Matrix, MS | S=Masked Sa | and Gra | ins. | ² Location: P | | 0 | |
| Hydric Soil | | | | | | | | | | ydric Soils ³ : |
| Histosol | () | | Dark Surface | · · · | | | | | 10) (MLRA | • |
| · · · | pipedon (A2) | | Polyvalue Be | | | | 148) C | | Redox (A16 |) |
| | stic (A3) | | Thin Dark Su | · · · | | 47, 148) | _ | (MLRA 14 | | |
| | en Sulfide (A4) | | Loamy Gleye | . , |) | | P | | odplain Soils | s (F19) |
| | d Layers (A5) | | Depleted Mat | , , | | | | (MLRA 13 | | |
| | ick (A10) (LRR N) | (| Redox Dark S | • • | | | | • | Dark Surfac | · · · |
| | d Below Dark Surface | (A11) | Depleted Dar | | 7) | | | ther (Explai | n in Remark | S) |
| | ark Surface (A12) | | Redox Depre | | | | | | | |
| | 1ucky Mineral (S1) (Ll | KR N, | Iron-Mangan | | (F12) (L | .KR N, | | | | |
| | A 147, 148) | | MLRA 13 | , | DA 490 | 400) | 31.0.0 | instant of h | | and attack and a |
| | Bleyed Matrix (S4) | | Umbric Surfa | · /· | | | | - | | getation and |
| | Redox (S5) | | Piedmont Flo | • | | | | • | logy must be | • |
| | Matrix (S6) Layer (if observed): | | Red Parent N | | | × 1 <i>21</i> , 147) | un | เธออ นเอเนไม | ed or problen | |
| Type: roc | | | | | | | | | | |
| | ches): <u>14</u> | | _ | | | | Hydric Soil | Brocont? | Yes | No 🖌 |
| | uies). | | _ | | | | nyuric 301 | Fresent? | 165 | |
| Remarks: | | | | | | | | | | |



Upland data point wpoa421_u facing south



Upland data point wpoa421_u facing west

| Project/Site: Atlantic Coast Pipeline | City/County: F | Pocahontas County | Sampling Date: 3/10/2016 |
|----------------------------------------------------------------------|-----------------------|-----------------------------------------|----------------------------|
| Applicant/Owner: | | State: WV | Sampling Point: wpoe007e_w |
| Investigator(s): CG, AS | Section, Town | ship, Range: <u>No PLSS in this are</u> | а |
| Landform (hillslope, terrace, etc.): floodplain | | ave, convex, none): <u>concave</u> | - |
| Subregion (LRR or MLRA): N Lat: 38.416 | 698666 | Long: <u>-80.04723625</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| Are climatic / hydrologic conditions on the site typical for this ti | me of year? Yes | No (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology sign | nificantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nate | urally 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: | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| | |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No Depth (inches): | |
| Water Table Present? Yes <u>v</u> No Depth (inches): 5 Saturation Present? Yes <u>v</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | Wetland Hydrology Present? Yes <u>V</u> No tions), if available: |

Sampling Point: wpoe007e_w

| | | Absolute | Dominant I | ndicator | Dominance Test worksheet: | |
|----------------------------------|-----------------------------|----------|------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Tree Stratum (Plot size: | 30) | % Cover | Species? | Status | Number of Dominant Species | |
| 1 | | | | | | (A) |
| 2 | | | | | Table New York (Device of | |
| 3 | | | | | Total Number of Dominant Species Across All Strata: | (B) |
| 4 | | | | | | (2) |
| | | | | | Percent of Dominant Species | |
| 5 | | | | | That Are OBL, FACW, or FAC: 100 | (A/B) |
| 6 | | | · | | Prevalence Index worksheet: | |
| 7 | | | | | | |
| | | | = Total Cove | | | |
| | 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species X I =X I | |
| Sapling/Shrub Stratum (Plot size | e:) | | | | FACW species $x 2 = 140$ | |
| 1 | | | | | FAC species x 3 = | |
| 2 | | | | | FACU species x 4 = 8 | |
| | | | | | UPL species 0 x 5 = 0 | |
| 3 | | | | | 92 159 | (B) |
| 4 | | | | | | _ (D) |
| 5 | | | | | Prevalence Index = B/A =1.92 | |
| 6 | | | | | Hydrophytic Vegetation Indicators: | • |
| 7 | | | | | | |
| 8 | | | | | 1 - Rapid Test for Hydrophytic Vegetation | |
| | | | | | ✓ 2 - Dominance Test is >50% | |
| 9 | | 0 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ | |
| | 50% of total cover: 0 | | = Total Cove | er O | 4 - Morphological Adaptations ¹ (Provide supp | orting |
| | | 20% of | total cover: | | data in Remarks or on a separate sheet) | |
| Herb Stratum (Plot size: | 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain | 2) |
| 1. Lysimachia nummularia | | 70 | Yes | FACW | | 1) |
| 2. Symplocarpus foetidus | | 5 | No | OBL | | |
| 3. Plantago cordata | | 5 | No | OBL | ¹ Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic. | lust |
| 4 Galax urceolata | | 2 | No | FACU | | |
| | | | | | Definitions of Four Vegetation Strata: | |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 c | m) or |
| 6 | | | · | | more in diameter at breast height (DBH), regardle | |
| 7 | | | | | height. | |
| 8 | | | | | Sapling/Shrub Weady plants evoluting vises | logo |
| 9 | | | | | Sapling/Shrub – Woody plants, excluding vines, than 3 in. DBH and greater than or equal to 3.28 | |
| 10. | | | | | m) tall. | |
| 11 | | | | | | |
| · · · · | | 82 | Total Caura | | Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall. | dless |
| | 50% of total cover: 41 | | = Total Cove total cover: | | of size, and woody plants less than 5.26 it tall. | |
| | | 20% 01 | total cover. | 10.1 | Woody vine – All woody vines greater than 3.28 | ft in |
| Woody Vine Stratum (Plot size: |) | | | | height. | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4. | | | | | | |
| 5 | | | | | Hydrophytic | |
| J | | | | | Vegetation Present? Yes <u>Ves</u> No | |
| | 50% of total cover: 0 | | = Total Cove | • | | |
| | | | total cover: | | | |
| Remarks: (Include photo numbe | ers here or on a separate s | heet.) | | | | |
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| Profile Des | cription: (Describe t | o the depth | n needed to docum | nent the ir | ndicator | or confirm | the absence | e of indicators.) |
|-------------|-------------------------------------------|-------------|---------------------------------|--------------|------------------------|------------------|------------------|-----------------------------------------------------|
| Depth | Matrix | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-3 | 10YR 2/2 | 100 | | | | | L | MUCKY MINERAL |
| 3-16 | 10YR 5/1 | 100 | | | | | С | |
| | | | | | | | | |
| | | <u> </u> | | | | | | |
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| 1 | | · | | | | | 2 | |
| | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | | PL=Pore Lining, M=Matrix. |
| Hydric Soil | | | | | | | | ators for Problematic Hydric Soils ³ : |
| Histoso | · · / | | Dark Surface | | (- -) - | | | 2 cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | • • • | | 148)(| Coast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | · , | • | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | ^I | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) uck (A10) (LRR N) | | ✓ Depleted Mar Redox Dark \$ | . , | S) | | Ň | (MLRA 136, 147) Very Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (Δ11) | Depleted Dark | | , | | | Other (Explain in Remarks) |
| · | ark Surface (A12) | (/(11) | Redox Depre | | | | ` | |
| | Aucky Mineral (S1) (L | RR N. | Iron-Mangan | • | , | RR N. | | |
| - | A 147, 148) | , | MLRA 13 | | - (· · -/ (| , | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | MLRA 13 | 6, 122) | ³ Inc | dicators of hydrophytic vegetation and |
| - | Redox (S5) | | Piedmont Flo | · / · | | | | etland hydrology must be present, |
| Stripped | d Matrix (S6) | | Red Parent N | Aaterial (F2 | 21) (MLR | A 127, 147 | ') ur | nless disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soi | il Present? Yes 🖌 No |
| Remarks: | | | | | | | | |
| r comanto. | | | | | | | | |
| | | | | | | | | |



Photo 1 Wetland data point wpoe007e_w facing south



Photo 2 Wetland data point wpoe007e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pc | ocahontas County | _ Sampling Date: 3/10/2016 |
|-------------------------------------------------------------------|--------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe007_u |
| Investigator(s): CG, AS | Section, Towns | hip, Range: <u>No PLSS in this are</u> | а |
| Landform (hillslope, terrace, etc.): Ridge | | ve, convex, none): <u>convex</u> | _ |
| Subregion (LRR or MLRA): N Lat: 38.4 | 41707952 | Long: <u>-80.04723964</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | 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 | significantly disturbed? | Are "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 | <u> 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、</u> | Is the Sampled Area within a Wetland? | Yes | No | v |
|---------------------------------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|---------------------------------------|-----|----|---|
| Remarks: | | | | | | | |

| 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 Set | 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): | |
| 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): | Wetland Hydrology Present? Yes No |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No | , , , |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No _ Depth (inches): | , , , |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No | , , , |
| Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | , , , |
| Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | , , , |
| Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | , , , |
| Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | , , , |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | , , , |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | , , , |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | , , , |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | , , , |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | , , , |

Sampling Point: wpoe007_u

| , , | Absolute | • Dominant In | diaatar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|-------------------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Dominant Ir Species? | Status | |
| Acer saccharum | 40 | Yes | FACU | Number of Dominant Species That Are OBL EACW or EAC: 0 (A) |
| 1. | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Total Number of Dominant Species Across All Strata: 6 (B) |
| | | | | |
| 4 | | · · | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | | | |
| | | · · | | Prevalence Index worksheet: |
| 7 | 40 | · · | | Total % Cover of: Multiply by: |
| | | = Total Cover | | |
| 50% of total cover: 20 | 20% of | total cover: | 8 | OBL species $x = x$ |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 =0 |
| 1. Crataegus crus-galli | 15 | Yes | FACU | FAC species $5 \times 3 = 15$ |
| | | · · | | 100 100 |
| 2. Acer saccharum | 10 | Yes | FACU | FACU species X 4 = |
| 3. Fagus grandifolia | 5 | No | FACU | UPL species x 5 =0 |
| | | · · | | Column Totals:(A)(B) |
| 4 | | | | (b) |
| 5 | | | | Prevalence Index = $B/A = 3.95$ |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | <u> </u> | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9. | | | | |
| <u>.</u> | 30 | Tatal O | | 3 - Prevalence Index is ≤3.0 ¹ |
| 15 | | = Total Cover | 6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:15 | 20% of | total cover: | <u> </u> | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1 Fagus grandifolia | 10 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Galium parisiense | 10 | Yes | FACU | |
| | | · · | | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Crataegus crus-galli | 10 | Yes | FACU | be present, unless disturbed or problematic. |
| _{4.} Carex blanda | 5 | No | FAC | |
| | | · · | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | · | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | , , , , , , , , , , , , , , , , , , , |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | |
| ··· | 35 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 47.5 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 17.5 | 20% of | total cover: | 1 | 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 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.) | | | |
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| Profile Des | cription: (Describe t | o the depth | needed to docun | nent the i | ndicator | or confirm | the absence of indicators.) | | | |
|-------------|------------------------------------------|-------------|-------------------------|-------------|---------------------|------------------|-------------------------------------------|---------------------|--|--|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | | marks | | |
| 0-2 | 10YR 2/2 | 100 | | | | | L | | | |
| 2-12 | 7.5YR 4/3 | | | | | | SC | | | |
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| | | | | | | | | | | |
| | oncentration, D=Deple | | Peduced Matrix MS | -Maskod | Sand Gr | aine | ² Location: PL=Pore Lining, M= | Matrix | | |
| Hydric Soil | | | | | | anio. | Indicators for Problem | | | |
| Histoso | | | Dark Surface | (S7) | | | 2 cm Muck (A10) (I | - | | |
| | pipedon (A2) | | Polyvalue Be | · · · | ce (S8) (N | ILRA 147, | | | | |
| | istic (A3) | | Thin Dark Su | | | | ,(MLRA 147, 148 | , , | | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (| F2) | | Piedmont Floodpla | n Soils (F19) | | |
| Stratifie | d Layers (A5) | | Depleted Mat | trix (F3) | | | (MLRA 136, 147 |) | | |
| | uck (A10) (LRR N) | | Redox Dark S | | | | Very Shallow Dark Surface (TF12) | | | |
| · | d Below Dark Surface | (A11) | Depleted Dar | | · · · | | Other (Explain in Remarks) | | | |
| | ark Surface (A12) | | Redox Depre | | | | | | | |
| - | Mucky Mineral (S1) (L l | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | | | |
| | A 147, 148) Gleyed Matrix (S4) | | MLRA 13 Umbric Surfa | , | MI DA 12 | 6 122) | ³ Indicators of hydroph | vtic vogotation and | | |
| | Redox (S5) | | Piedmont Flo | · / · | | | | | | |
| | d Matrix (S6) | | Red Parent N | | | | | | | |
| | Layer (if observed): | | | iatoriai (i | | ~ 121, 141 | | | | |
| Type: | | | | | | | | | | |
| , · · · | ches): | | | | | | Hydric Soil Present? Yes | No 🖌 | | |
| | | | | | | | Hydric John resent: 165 | | | |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Photo 1 Upland data point wpoe007_u facing southeast



Photo 2 Upland data point wpoe007_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Por | cahontas County | _ Sampling Date: 3/10/2016 |
|-------------------------------------------------------------------|-------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe006e_w |
| Investigator(s): CG, AS | Section, Townsh | nip, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): depression | | e, convex, none): <u>concave</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): N Lat: 38.4 | 028763 | Long: <u>-80.04233588</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| 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 | ignificantly 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 _ ✔ No Yes _ ✔ No Yes _ ✔ No | Is the Sampled Area within a Wetland? | Yes 🥢 No |
|---------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------|----------|
| Remarks: | | | |

| 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 Set | 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 | Wetland Hydrology Present? Yes <u></u> |
| Water Table Present? Yes <u>V</u> No Depth (inches): 10 | |
| Water Table Present? Yes V Depth (inches): 10 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) V V V V V | |
| Water Table Present? Yes V Depth (inches): 10 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) V V V V V | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective of the stream gauge) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ NoDepth (inches):0 [includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective stream gauge, monitoring well, aerial photos, previous inspecting stream | |

Sampling Point: wpoe006e_w

| Tree Stratum (Plot size: 30) Absolute % Cover Dominant Indicator % Species? Dominant Indicator % Status 1 2 Total Number of Dominant Indicator | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1 That Are OBL, FACW, or FAC: 2 | |
| 2 | 1 (A) |
| 2 Total Number of Dominant | (7) |
| | |
| 3 Species Across All Strata: | <u>1</u> (B) |
| 4. | |
| | 00 (A/B) |
| | 00 (A/B) |
| 6 Prevalence Index worksheet: | |
| 7 | |
| 0 = Total Cover 0 Total % Cover of: Multip | |
| 50% of total cover: 0 20% of total cover: 0 OBL species 90 x 1 = | 90 |
| 15 5.000 1.2 | 4 |
| edpinig/enrue etratam (hist size:/ | 0 |
| 1 FAC species x 3 = | 0 |
| 2. FACU species X 4 = | |
| UPL species U x 5 = | 0 |
| | 94 (B) |
| 4 Column Totals: (A) | (D) |
| 5 Prevalence Index = B/A =1 | .02 |
| | |
| | |
| 7 | tation |
| 8 2 - Dominance Test is >50% | |
| | |
| 9 0 = Total Cover 1 | |
| 50% of total cover: <u>0</u> 20% of total cover: <u>0</u> <u>4 - Morphological Adaptations¹ (Pro</u> | vide supporting |
| r data in Remarks of on a separat | e sheet) |
| Herb Stratum (Plot size:) | , |
| 1. <u>Carex lupulina</u> 90 Yes OBL Problematic Hydrophytic Vegetation | (Explain) |
| 2. Juncus effusus 2 No FACW | |
| ¹ Indicators of hydric soil and wetland hydric | |
| 3 be present, unless disturbed or problem | atic. |
| 4 Definitions of Four Vegetation Strata: | |
| 5 | |
| Tree – Woody plants excluding vines 3 | in. (7.6 cm) or |
| 6 more in diameter at breast height (DBH) | , regardless of |
| 7 height. | |
| 8 Sapling/Shrub Woody plants evoluti | |
| 9 Sapling/Shrub – Woody plants, excludi than 3 in. DBH and greater than or equa | |
| | 110 3.20 11 (1 |
| 10 m) tail. | |
| 11 Herb – All herbaceous (non-woody) plar | nts, regardless |
| 92 = Total Cover of size, and woody plants less than 3.28 | |
| 50% of total cover: 46 20% of total cover: 18.4 | |
| Woody vine – All woody vines greater t | nan 3.28 ft in |
| height. | |
| 1 | |
| 2 | |
| 3 | |
| | |
| | |
| 4 Hydrophytic | |
| 5 Vegetation | |
| 5 Vegetation | |
| 5 Vegetation = Total Cover Vegetation Present? Yes No _ | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5 Vegetation = Total Cover Vegetation Present? Yes No _ | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
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| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |
| 5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 | |

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------|------------|-------------------|-------------|---------------------|------------------|----------------------------------|------------------------------------|------------------|--|
| Depth | Matrix | | Redo | x Feature | S | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | | |
| 0-7 | 10YR 3/1 | | | | | | CL | | | |
| 0-16 | 10Y 5/1 | 93 | 7.5YR 4/6 | 7 | С | PL | SL | | | |
| | | | | | | | | | | |
| | | | | | . <u> </u> | | | | | |
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| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM= | Reduced Matrix, M | S=Masked | d Sand Gra | ains. | ² Location: PL: | =Pore Lining, M=Matrix. | | |
| Hydric Soil | Indicators: | | | | | | Indicat | ors for Problematic Hydric Soils | s ³ : | |
| <u> </u> | (A1) | | Dark Surface | e (S7) | | | 2 c | m Muck (A10) (MLRA 147) | | |
| Histic E | pipedon (A2) | | Polyvalue Be | elow Surfa | ice (S8) (N | ILRA 147, | 148) Co | ast Prairie Redox (A16) | | |
| Black H | istic (A3) | | Thin Dark Sι | urface (S9 |) (MLRA 1 | 47, 148) | | (MLRA 147, 148) | | |
| Hydroge | en Sulfide (A4) | | 🖌 Loamy Gleye | ed Matrix | (F2) | | Pie | edmont Floodplain Soils (F19) | | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) | | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | Very Shallow Dark Surface (TF12) | | | |
| Deplete | d Below Dark Surface | (A11) | Depleted Da | rk Surface | e (F7) | | Oth | ner (Explain in Remarks) | | |
| Thick Da | ark Surface (A12) | | Redox Depre | essions (F | 8) | | | | | |
| Sandy M | /lucky Mineral (S1) (Lf | RR N, | Iron-Mangan | ese Mass | es (F12) (I | LRR N, | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | |
| Sandy C | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) | (MLRA 13 | 6, 122) | ³ Indic | ators of hydrophytic vegetation an | ıd | |
| Sandy F | Redox (S5) | | Piedmont Flor | oodplain S | Soils (F19) | (MLRA 14 | 8) wetl | and hydrology must be present, | | |
| Stripped | d Matrix (S6) | | Red Parent I | Material (F | 21) (MLR | A 127, 147 | 7) unle | ss disturbed or problematic. | | |
| Restrictive | Layer (if observed): | | | | | | | | | |
| Type: | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil F | Present? Yes 🖌 No 🔄 | | |
| Remarks: | | | | | | | • | | | |

Soil appears to have been compacted by logging operations in the past.



Photo 1 Wetland data point wpoe006e_w facing south



Photo 2 Wetland data point wpoe006e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: 3/10/2016 |
|----------------------------------------------------------------------|-----------------------|---------------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe006_u |
| Investigator(s): CG, AS | Section, Township | p, Range: <u>No PLSS</u> in this area | |
| Landform (hillslope, terrace, etc.): slope | | , convex, none): <u>convex</u> | • |
| Subregion (LRR or MLRA): N Lat: 38.402 | 283879 | Long: <u>-80.04222186</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical for this ti | me of year? Yes | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology sign | nificantly disturbed? | Are "Normal Circumstances" p | oresent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nat | urally problematic? | (If needed, explain any answe | rs in Remarks.) |
| | | | |

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

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

| 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 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 Sc | 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) | 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): | |
| 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 inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |

Sampling Point: wpoe006_u

| | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|----------|--------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | Status | Number of Dominant Species |
| Acer saccharum | 40 | Yes | FACU | That Are OBL, FACW, or FAC:1 (A) |
| 2. Prunus serotina | 10 | Yes | FACU | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:4 (B) |
| 4 | | | | Demonstrat Demoiser |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:25 (A/B) |
| | | | | |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | | = Total Cover | | |
| 50% of total cover: 25 | 20% of | total cover: | 10 | OBL species $x^{-1} = -$ |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $\begin{array}{c} 0 \\ x 2 = \\ \end{array}$ |
| Acer saccharum | 10 | Yes | FACU | FAC species 10 x 3 = 30 |
| | | | | 60 240 |
| 2 | | | | |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = $B/A = $ 3.85 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | 10 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| _ | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 5 | 20% of | total cover: | 2 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| Carex blanda | 10 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| ·· | | | | |
| 2 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 10 | | | | |
| 11 | | | | 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: 5 | 20% of | total cover: | 2 | |
| 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 |
| | | = Total Cover | <u> </u> | Present? Yes No V |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | | | | l |
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| Profile Desc | cription: (Describe to | o the depth | needed to docun | nent the in | ndicator | or confirm | the absence o | of indicators.) | |
|------------------------|---------------------------------|-------------|-------------------|--------------|---------------------|------------------|----------------------------|------------------------------------------------|---------------|
| Depth | Matrix | | Redo | x Features | 5 | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remark | S |
| 0-4 | 10YR 3/3 | 100 | | | | | CL | | |
| 4-14 | 10YR 4/4 | 100 | | | | | CL | | |
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| | | | | | | | | | |
| ¹ Tvpe: C=C | oncentration, D=Deple | etion. RM=R | educed Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL= | =Pore Lining, M=Matr | ix. |
| Hydric Soil | | | , , , | | | | | ors for Problematic | |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 c | m Muck (A10) (MLRA | A 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | ce (S8) (N | ILRA 147, | 148) Co | ast Prairie Redox (A1 | 6) |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | =2) | | Pie | edmont Floodplain So | ils (F19) |
| | d Layers (A5) | | Depleted Mat | · · / | | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | | Redox Dark S | | , | | | ry Shallow Dark Surfa | · · |
| - | d Below Dark Surface | (A11) | Depleted Dar | | . , | | Oth | ner (Explain in Remar | ·ks) |
| | ark Surface (A12) | | Redox Depre | | , | | | | |
| | /lucky Mineral (S1) (L l | RR N, | Iron-Mangane | | es (F12) (I | LRR N, | | | |
| | A 147, 148) | | MLRA 13 | , | | 0 400) | 31 | - to an a film along the disc | and a Comment |
| | Gleyed Matrix (S4) | | Umbric Surfa | · / · | | • • | | ators of hydrophytic v | • |
| | Redox (S5) I Matrix (S6) | | Piedmont Flo | • | , , | • | • | and hydrology must b ss disturbed or proble | • |
| | Layer (if observed): | | | ialeliai (F2 | | A 127, 147 |) unie | | |
| _ | Layer (il observeu). | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | cnes): | | | | | | Hydric Soil F | Present? Yes | No |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |



Photo 1 Upland data point wpoe006_u facing south



Photo 2 Upland data point wpoe006_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas County | _ Sampling Date: 7/12/2016 |
|---------------------------------------------------------------------------|------------------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | State: WV | Sampling Point: wpoy003e_w |
| Investigator(s): KO, AS | _ Section, Township, Range: No PLSS in this are | а |
| Landform (hillslope, terrace, etc.): Sideslope | _ocal relief (concave, convex, none): <u>concave</u> | Slope (%): <u>10</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.39708789</u> | 9 Long: <u>-80.04757774</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | NWI classifie | cation: PEM |
| 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 Hydrology significant | tly disturbed? Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally p | problematic? (If needed, explain any answe | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showin | ng 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: | | | | | |
| Wetland data point taken below seep alo | ong sideslope. | Wetland channelizes | s to form an ephemeral strear | m. | |
| | | | | | |
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| | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) 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 Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Ver Depth (inches): | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes V Depth (inches): 0 Depth (inches): 0 | Wetland Hydrology Present? Yes <u>✓</u> No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| | ions), if available: |

Sampling Point: wpoy003e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | % Cover | Species? | | Number of Dominant Species |
| 1. none | 0 | | | 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:(A/B) |
| 6 | | | | |
| _ | | | | Prevalence Index worksheet: |
| 7 | 0 | | | Total % Cover of: Multiply by: |
| | | = Total Cove | | $\begin{array}{c} \hline \hline$ |
| 50% of total cover:0 | 20% of | total cover: | 0 | 70 440 |
| Sapling/Shrub Stratum (Plot size: 0) | | | | FACW species $x^2 = 140$ |
| 1. none | 0 | | | FAC species5 x 3 =15 |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | <u> </u> | UPL species $0 \times 5 = 0$ |
| 3 | | | <u> </u> | 100 190 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| | | | | Prevalence Index = B/A =1.8 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cove | r | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 0 | 20 /0 01 | total cover. | | data in Remarks or on a separate sheet) |
| | 40 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Impatiens capensis | 40 | Yes | FACW | |
| _{2.} Glyceria striata | 25 | Yes | OBL | 1 |
| 3. Mentha spicata | 15 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Symphyotrichum lanceolatum | 15 | No | FACW | be present, unless disturbed or problematic. |
| 5. Rumex crispus | 5 | | | Definitions of Four Vegetation Strata: |
| 5. Kullex clispus | | No | FAC | Tree Weedy plants evoluting vince 2 in (7.6 cm) or |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8. | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | <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 |
| | 100 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | | total cover: | | |
| | 20 /0 01 | total cover. | | Woody vine - All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | <u> </u> | Vegetation |
| | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | 1 |
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| Profile Desc | cription: (Describe to | o the dep | oth needed to docur | nent the i | ndicator | or confirm | the absence of i | indicators.) | |
|------------------------|--------------------------------------------------|-----------|---------------------|-------------------------|--------------------|------------------|----------------------|-----------------------------------------------|----------------------------|
| Depth | Matrix | | | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-4 | 5YR 4/3 | 100 | | | | | SIC | | |
| 4-12 | 5YR 4/2 | 90 | 5YR | | С | Μ | SIC | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Masked | I Sand Gra | ains. | | ore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicator | s for Problematic Hy | /dric Soils ³ : |
| Histosol | (A1) | | Dark Surface | · · · | | | | Muck (A10) (MLRA 1 | 47) |
| | pipedon (A2) | | Polyvalue Be | | · / · | | · <u> </u> | t Prairie Redox (A16) | |
| | istic (A3) | | Thin Dark Su | · · · | • | 47, 148) | • | LRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | F2) | | | mont Floodplain Soils | (F19) |
| | d Layers (A5) | | ✓ Depleted Ma | . , | | | • | LRA 136, 147) | |
| | uck (A10) (LRR N) d Below Dark Surface | (11) | Redox Dark | • | , | | | Shallow Dark Surface r (Explain in Remarks | , , |
| | ark Surface (A12) | (,,,,) | Redox Depre | | · · · | | | |) |
| | /ucky Mineral (S1) (LI | RR N. | Iron-Mangan | | , | LRR N. | | | |
| | A 147, 148) | , | MLRA 13 | | οο (<u>_</u>) (. | , | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , ice (F13) (| MLRA 13 | 6, 122) | ³ Indicat | ors of hydrophytic veg | etation and |
| | Redox (S5) | | Piedmont Flo | odplain S | oils (F19) | (MLRA 14 | | nd hydrology must be | |
| Stripped | l Matrix (S6) | | Red Parent M | Aaterial (F | 21) (MLR | A 127, 147 | 7) unless | disturbed or problem | atic. |
| | Layer (if observed): | | | | | | | | |
| Type: roo | | | | | | | | | |
| Depth (in | ches): <u>12</u> | | | | | | Hydric Soil Pre | esent? Yes 🖌 | No |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |



Wetland data point wpoy003e_w facing east



Wetland data point wpoy003e_w facing west

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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 in forest. | | | | | | |

HYDROLOGY

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| Secondary Indicators (minimum of two required) | | | | |
|------------------------------------------------|--|--|--|--|
| Surface Soil Cracks (B6) | | | | |
| Sparsely Vegetated Concave Surface (B8) | | | | |
| Drainage Patterns (B10) | | | | |
| Roots (C3) Moss Trim Lines (B16) | | | | |
| Dry-Season Water Table (C2) | | | | |
| Crayfish Burrows (C8) | | | | |
| Saturation Visible on Aerial Imagery (C9) | | | | |
| Stunted or Stressed Plants (D1) | | | | |
| Geomorphic Position (D2) | | | | |
| Shallow Aquitard (D3) | | | | |
| Microtopographic Relief (D4) | | | | |
| FAC-Neutral Test (D5) | | | | |
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| | | | | |
| nd Hydrology Present? Yes No | | | | |
| available: | | | | |
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Sampling Point: wpoy003_u

| | Absolute | Dominant I | odicator | Dominance Test worksheet: |
|-------------------------------------------------------|----------|------------------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1 Acer saccharum | 90 | Yes | FACU | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| 2. | | | | |
| | | | <u> </u> | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: (B) |
| 4 | | · | . <u> </u> | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 50 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 90 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 45 | | total cover: | 18 | OBL species $0 	 x 1 = 0$ |
| Sapling/Shrub Stratum (Plot size: 0) | | _ | | FACW species x 2 = 20 |
| 1. none | 0 | | | FAC species $\frac{60}{x 3} = \frac{180}{x 3}$ |
| | | | · | FACU species $90 \times 4 = 360$ |
| 2 | | | | $\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $ |
| 3 | | | | 160 560 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | <u> </u> | | | Prevalence Index = B/A =3.5 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | · | 2 - Dominance Test is >50% |
| 9 | 0 | · | . <u> </u> | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | ^ | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 0) | | | | |
| 1. Laportea canadensis | 60 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Impatiens capensis | 10 | No | FACW | |
| 3 | | · <u> </u> | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | · | be present, unless disturbed or problematic. |
| 4 | | · | · | Definitions of Four Vegetation Strata: |
| 5 | | · | . <u> </u> | 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 | | | | One line (Ohmahaa) Maadaa ka sharata aa shakir aa daaba |
| 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. | | · | | |
| _ II | 70 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 50% of total cover: 35 | | = Total Cove total cover: | | of size, and woody plants less than 3.28 ft tall. |
| | 20% 01 | total cover: | 17 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size:0) | • | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5. | | | · | Hydrophytic Vegetation |
| | | Tatal Caus | | Present? Yes No V |
| 50% of total cover: 0 | | = Total Cove | ^ | |
| | | total cover: | | |
| Remarks: (Include photo numbers here or on a separate | sheet.) | | | |
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| Profile Desc | cription: (Describe t | o the depth | needed to docur | nent the ir | ndicator | or confirm | the absence o | of indicators.) | |
|--------------|-------------------------------|-------------|------------------|--------------|--------------------|------------------|---------------|-------------------------|--------------|
| Depth | Matrix | | Redo | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Rema | arks |
| 0-8 | 7.5YR 3/3 | 100 | | | | | SI | | |
| 8-12 | 7.5YR 4/3 | 100 | | | | | SICL | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | oncentration, D=Depl | | Poducod Motrix M | | Sond Cr | | | =Pore Lining, M=M | otriv |
| Hydric Soil | | | | S=IVIASKEU | Sanu Gra | aii 15. | | ors for Problemat | |
| Histosol | | | Dark Surface | (97) | | | | m Muck (A10) (ML | • |
| | pipedon (A2) | | Polyvalue Be | | e (S8) (N | II RA 147 | | ast Prairie Redox (| |
| | istic (A3) | | Thin Dark Su | | | | | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | . , | • | ,, | | edmont Floodplain S | Soils (F19) |
| , , | d Layers (A5) | | Depleted Ma | | , | | | (MLRA 136, 147) | () |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface (F | 6) | | Ve | ry Shallow Dark Su | rface (TF12) |
| Deplete | d Below Dark Surface | e (A11) | Depleted Date | rk Surface | (F7) | | Oth | ner (Explain in Rem | arks) |
| Thick Da | ark Surface (A12) | | Redox Depre | essions (F8 | 3) | | | | |
| Sandy N | /lucky Mineral (S1) (L | RR N, | Iron-Mangan | ese Masse | es (F12) (I | LRR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | | | | | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | | | | | ators of hydrophyti | - |
| - | Redox (S5) | | Piedmont Flo | | | | | and hydrology mus | |
| | Matrix (S6) | | Red Parent N | Aaterial (F2 | 21) (MLR | A 127, 147 | ') unle | ss disturbed or pro | blematic. |
| | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil P | Present? Yes | No |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |



Upland data point wpoy003_u facing northwest



Upland data point wpoy003_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas County | _ Sampling Date: 7/12/2016 |
|---------------------------------------------------------------------------|------------------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | State: WV | Sampling Point: wpoy002e_w |
| Investigator(s): KO, AS | _ Section, Township, Range: No PLSS in this are | a |
| Landform (hillslope, terrace, etc.): Ridge | _ocal relief (concave, convex, none): <u>concave</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): N Lat: 38.39665667 | Zerector Long: <u>-80.04736294</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | NWI classifi | ication: PEM |
| Are climatic / hydrologic conditions on the site typical for this time of | year? Yes 🔽 No (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology significant | tly disturbed? Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally p | problematic? (If needed, explain any answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showin | ng 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: | | | | |
| Wetland data point taken in depression of intermittent stream. | on saddle toeslo | ope of ridge and dra | ins surrounding upland areas | 3. Wetland channelizes and becomes an |

| 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 Roo | ots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils | (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <u></u> | |
| | |
| Water Table Present? Yes <u><!--</u--> No <u>Depth</u> (inches): 0</u> | |
| Saturation Present? Yes <u><</u> No <u>Depth (inches)</u> . 0 W | /etland Hydrology Present? Yes No |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 W (includes capillary fringe) | |
| Saturation Present? Yes <u><</u> No <u>Depth (inches)</u> . 0 W | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 W (includes capillary fringe) | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |
| Saturation Present? Yes No Depth (inches): W (includes capillary fringe) Mo Depth (inches): W Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | |

Sampling Point: wpoy002e_w

| | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | 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 | | · | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | Develop a la devena de la c |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species60 x 1 =60 |
| | 20% 01 | total cover: | | 35 70 |
| Sapling/Shrub Stratum (Plot size: 0) | | | | E 1E |
| 1. none | 0 | | | FAC species X 3 = |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | 100 145 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| | | | | Prevalence Index = B/A =1.45 |
| 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 ¹ |
| | | = Total Cover | - | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| Leersia oryzoides | 40 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Carex scoparia | 20 | Yes | FACW | ¹ Indiantara of hydria pail and watland hydrology must |
| 3. Carex vulpinoidea | 10 | No | OBL | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. Onoclea sensibilis | 10 | No | FACW | |
| 5. Carex lurida | 10 | No | | Definitions of Four Vegetation Strata: |
| | | No | OBL | \mathbf{T}_{res} . We adverte such dia suize 2 is (7.0 sm) as |
| 6. Eupatorium perfoliatum | 5 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 Lobelia appendiculata | 5 | No | FAC | 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 | | | | |
| 11 | 100 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 50 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | Weedy vine All weedy vince greater than 2.29 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| none | 0 | | | Toight. |
| | - | · | | |
| 2 | | · | | |
| 3 | | | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | · | | Vegetation Present? Yes Ves No |
| | 0 | = Total Cover | | Present? Yes <u>No</u> |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet) | | | |
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| Profile Des | cription: (Describe to | o the de | pth needed to docum | nent the i | indicator | or confirm | n the absence of in | dicators.) | |
|-------------|-------------------------------------|-----------|-----------------------------|-------------|--------------------------|------------------|------------------------|--------------------------------------|-------------|
| Depth | Matrix | | | x Feature | s | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-6 | 7.5YR 4/1 | 90 | 7.5YR 4/6 | 10 | С | M | SIC | | |
| 6-18 | 7.5YR 4/1 | 90 | 7.5YR 4/6 | 10 | С | М | С | | |
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| | oncentration, D=Deple | etion, RN | I=Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | | re Lining, M=Matrix. | |
| Hydric Soil | | | | | | | | for Problematic Hy | |
| Histoso | | | Dark Surface | . , | | | | luck (A10) (MLRA 1 | 47) |
| | pipedon (A2) | | Polyvalue Be | | | | | Prairie Redox (A16) | |
| | istic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | | | 47, 148) | • | RA 147, 148) ont Floodplain Soils | (E10) |
| | d Layers (A5) | | Depleted Mat | | (FZ) | | | RA 136, 147) | (F19) |
| | uck (A10) (LRR N) | | Redox Dark \$ | () | -6) | | • | hallow Dark Surface | (TF12) |
| | d Below Dark Surface | (A11) | ✓ Depleted Dar | | | | | Explain in Remarks) | · · |
| · | ark Surface (A12) | () | Redox Depre | | . , | | | | |
| Sandy M | / Jucky Mineral (S1) (L I | RR N, | Iron-Mangan | ese Mass | , es (F12) (I | _RR N, | | | |
| - | A 147, 148) | , | MLRA 13 | | · / · | | | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) | (MLRA 13 | 6, 122) | ³ Indicator | s of hydrophytic veg | etation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain S | oils (F19) | (MLRA 14 | 48) wetland | hydrology must be p | present, |
| Stripped | d Matrix (S6) | | Red Parent N | Aaterial (F | 21) (MLR | A 127, 147 | 7) unless d | listurbed or problem | atic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pres | ent? Yes 🖌 | No |
| Remarks: | | | | | | | l | | |
| | | | | | | | | | |



Wetland data point wpoy002e_w facing west



Wetland data point wpoy002e_w facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Po | ocahontas County | Sampling Date: 7/12/2016 |
|------------------------------------------------------------------|--------------------------|----------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoy002_u |
| Investigator(s): KO, AS | Section, Towns | ship, Range: No PLSS in this are | a |
| Landform (hillslope, terrace, etc.): Ridge | | ve, convex, none): <u>convex</u> | Slope (%): <u>8</u> |
| Subregion (LRR or MLRA): N Lat: 38. | 39656087 | Long: <u>-80.04741281</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPLAND |
| Are climatic / hydrologic conditions on the site typical for thi | is time of year? Yes | _ No (If no, explain in I | 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 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 | <u>~</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-----------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |
| Upland data point taken on ridgeline in a | bandoned past | ure and | d fallow field. | | | | |
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| 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 | 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) | 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): (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| Deveele | |
| Remarks: | |
| | |
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Sampling Point: wpoy002_u

| | Abcoluto | Dominant | Indiaator | Dominance Test worksheet: |
|---------------------------------------------------------|---------------------|----------------------|-----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size:0_) | Absolute % Cover | Dominant Species? | | |
| Acer rubrum | 10 | Yes | FAC | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (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: 50 (A/B) |
| 6 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | 10 | | | Total % Cover of: Multiply by: |
| | 10 | = Total Cov | | |
| 50% of total cover: 5 | 20% of | f total cover: | 2 | OBL species $x = x$ |
| Sapling/Shrub Stratum (Plot size:0) | | | | FACW species x 2 =0 |
| 1 Rubus allegheniensis | 50 | Yes | FACU | FAC species 30 x 3 = 90 |
| | | | | 70 000 |
| 2. Crataegus crus-galli | 20 | Yes | FACU | FACU species $x 4 = 0$ |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals: (A) (A) (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =3.7 |
| 6 | | | | |
| | | <u> </u> | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 70 | Total Case | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 35 | | = Total Cov | | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | f total cover: | <u> </u> | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size:0) | | | | |
| 1. Solidago rugosa | 20 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | |
| 8 | | - <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. | | | | |
| · · · · · · · · · · · · · · · · · · · | 20 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cov | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:10 | 20% of | f total cover: | 4 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| | | - <u> </u> | | |
| 2 | | | | |
| 3 | | | _ | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cov | er | Present? Yes No V |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | ineet.) | | | |
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| Danth | Mateir | | D - J- | | _ | | | | |
|------------------------|------------------------------|------------|---------------------|-----------------------|------------------------|------------------|------------------------------|------------------------|-------------------------------|
| Depth (inches) | Matrix Color (moist) | % | Color (moist) | <u>x Feature</u> % | s Type ¹ | Loc ² | Texture | Rema | rks |
| 0-8 | 7.5YR 4/4 | 100 | | /0 | <u> </u> | | SIL | Kenna | 1113 |
| | | | | | | | | | |
| | | | 10YR 5/8 | 25 | С | Μ | | | |
| 8-18 | 7.5YR 4/3 | 100 | | | | | SIC | | |
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| | | | | | | | | | |
| ¹ Type: C=C | Concentration, D=Dep | letion, RM | I=Reduced Matrix, M | S=Masked | d Sand Gra | ains. | ² Location: PL=Po | re Lining, M=Ma | trix. |
| Hydric Soil | Indicators: | | | | | | Indicators | for Problemation | c Hydric Soils ³ : |
| <u> </u> | l (A1) | | Dark Surface | e (S7) | | | 2 cm N | luck (A10) (MLF | RA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | ow Surfa | ce (S8) (N | ILRA 147, | 148) Coast | Prairie Redox (A | (16) |
| Black ⊢ | listic (A3) | | Thin Dark Su | | | | | RA 147, 148) | |
| Hydrog | en Sulfide (A4) | | Loamy Gleye | ed Matrix (| (F2) | | Piedm | ont Floodplain S | oils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | | | | (ML | RA 136, 147) | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | Very S | hallow Dark Sur | face (TF12) |
| Deplete | ed Below Dark Surfac | e (A11) | Depleted Da | rk Surface | e (F7) | | Other | Explain in Rema | arks) |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F | 8) | | | | |
| Sandy I | Mucky Mineral (S1) (I | _RR N, | Iron-Mangan | ese Mass | es (F12) (I | LRR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | |
| Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) (| (MLRA 13 | 6, 122) | ³ Indicato | s of hydrophytic | vegetation and |
| Sandy I | Redox (S5) | | Piedmont Flo | odplain S | ioils (F19) | (MLRA 14 | 8) wetland | hydrology must | be present, |
| Strippe | d Matrix (S6) | | Red Parent I | Material (F | 21) (MLR | A 127, 147 | 7) unless o | listurbed or prob | lematic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: | , | | | | | | | | |
| Depth (ir | | | | | | | Hydric Soil Pres | ent? Yes | No 🖌 |
| | iciico). | | <u> </u> | | | | Tryunc Son Fles | ent: 165 | |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |



Upland data point wpoy002_u facing south



Upland data point wpoy002_u facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pr | ocahontas County | Sampling Date: 7/12/2016 |
|----------------------------------------------------------------|--------------------------|-----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoy001e_w |
| Investigator(s): KO, AS | Section, Towns | ship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): ridge | | ve, convex, none): <u>convex</u> | Slope (%): <u>7</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>3</u> | 8.39589781 | Long: <u>-80.04830612</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: PEM |
| Are climatic / hydrologic conditions on the site typical for t | his 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.) |
| | n chowing compling r | aint la actional transact | |

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, 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: | | | | | |
| Wetland data point taken on ridgeline with | th an underlyin | g layer of clay. | | | |
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| 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 Ro | oots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils | (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Water Table Present? Yes No <u></u> | |
| Saturation Present? Yes <u>/</u> No Depth (inches): <u>1</u> / | Vetland Hydrology Present? Yes <u>/</u> No |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspectio | ns), if available: |
| Remarks: | |
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Sampling Point: wpoy001e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size:0) | | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | Total New Jon of Device of |
| 3 | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| 4 | | | | |
| | | | <u> </u> | Percent of Dominant Species |
| 5 | | | <u> </u> | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | | | |
| | | = Total Cove | | $\begin{array}{c c} \underline{\text{Total } \% \text{ Cover of:}} \\ \hline \text{OPL encoded} \\ 40 \\ \hline \text{v 1} \\ \underline{40} \\ 40 \\ \hline \text{v 1} \\ \underline{40} \\ 40 \\ \hline \end{array}$ |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species X I = |
| Sapling/Shrub Stratum (Plot size: 0) | | | | FACW species $x 2 = 120$ |
| 1. none | 0 | | | FAC species x 3 =0 |
| 2 | | | | FACU species x 4 =0 |
| | | | | UPL species x 5 =0 |
| 3 | | | | Column Totals: 100 (A) 160 (B) |
| 4 | | · | | |
| 5 | | · | | Prevalence Index = $B/A = 1.6$ |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | ✓ 2 - Dominance Test is >50% |
| 9 | 0 | · | <u> </u> | ✓ 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 0) | | | | |
| _{1.} Carex scoparia | 50 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Carex prasina | 25 | Yes | OBL | |
| 3. Scirpus atrovirens | 15 | No | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| Juncus effusus | 10 | No | FACW | be present, unless disturbed or problematic. |
| | | | 1701 | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| 9. | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 10 | | · | | |
| 11 | 400 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| | | · | | |
| 3 | | · | <u> </u> | |
| 4 | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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| Profile Des | cription: (Describe t | o the de | - | | | or confirm | n the absence of | f indicators.) |
|------------------------|---------------------------------------|----------------|---------------------------------|----------------|---------------------|--------------------|------------------|---------------------------------------------------------------------------|
| Depth (in the set) | Matrix | 0/ | | x Feature | - | 1 a a ² | Tautuma | Demedia |
| <u>(inches)</u> 0-2 | Color (moist) 5YR 4/2 | <u>%</u> 85 | Color (moist) 5YR | <u>%</u> 15 | <u>Type'</u> C | Loc ² | Texture | Remarks |
| - | | | | | | | | |
| 2-5 | 7.5YR 4/1 | 90 | 5YR 4/6 | 10 | С | М | L | |
| 5-18 | 5YR 4/3 | 100 | | | | | С | |
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| | | | | | | | 21 | |
| | Concentration, D=Depl Indicators: | etion, RN | I=Reduced Matrix, Ma | S=Masked | d Sand Gra | ains. | | Pore Lining, M=Matrix. prs for Problematic Hydric Soils ³ : |
| - | | | Dark Surfage | (07) | | | | - |
| Histoso | pipedon (A2) | | Dark Surface Polyvalue Be | · · / | 000 (SQ) (N | | | m Muck (A10) (MLRA 147) ast Prairie Redox (A16) |
| | listic (A3) | | Thin Dark Su | | | | | MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | • | , . | ,, | • | dmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Ma | | () | | | MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | | y Shallow Dark Surface (TF12) |
| Deplete | ed Below Dark Surface | e (A11) | Depleted Da | rk Surface | e (F7) | | Oth | er (Explain in Remarks) |
| | ark Surface (A12) | | Redox Depre | | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | |
| | A 147, 148) | | MLRA 13 | • | | | 3 | |
| - | Gleyed Matrix (S4) | | Umbric Surfa | | | | | ators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | • | , , | • | • | and hydrology must be present, |
| | d Matrix (S6) Layer (if observed): | | Red Parent N | viateriai (F | ·21) (MLR. | A 127, 147 | () unles | ss disturbed or problematic. |
| | Layer (il observed). | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | icnes): | | | | | | Hydric Soil P | resent? Yes <u>V</u> No |
| Remarks: | | | | | | | | |
| 1 | | | | | | | | |



Wetland data point wpoy001e_w facing north



Wetland data point wpoy001e_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Poc | ahontas County | _ Sampling Date: 7/12/2016 |
|-------------------------------------------------------------------|--------------------------|---------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoy001_u |
| Investigator(s): KO, AS | Section, Townsh | p, Range: No PLSS in this are | |
| Landform (hillslope, terrace, etc.): ridge | | e, convex, none): <u>convex</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.3</u> | 39600158 | Long: <u>-80.04806171</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPLAND |
| 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 | significantly disturbed? | Are "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.

| No 🖌 No 🖌 No 🖌 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|----------------------|---------------------------------------|----------------------|--------------------------|
| | • | | |
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| | | | |
| | No 🖌 | No within a Wetland? | No within a Wetland? Yes |

| HYDI | ROL | OGY |
|------|-----|-----|
|------|-----|-----|

| 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 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 Sc | 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) | 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>Constant</u> | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| | |
| Remarks: | |
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Sampling Point: wpoy001_u

| | Absolute | Dominant I | | Dominance Test worksheet: |
|---------------------------------------------------------|----------------|--------------|--------|----------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | |
| | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>3</u> (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL_EACW_or_EAC: 33.33333333 (A/B) |
| 0 | | · <u> </u> | | That Are OBL, FACW, or FAC: <u>33.333333333</u> (A/B) |
| 6 | | | | Decoder as in decouverbal and |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species x 1 =0 |
| | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: 0) | | | | FACVV species x 2 = |
| 1 Crataegus crus-galli | 25 | Yes | FACU | FAC species $\frac{65}{x 3} = \frac{195}{x 3}$ |
| 2 Rubus allegheniensis | 15 | Yes | FACU | FACU species $\frac{60}{x 4} = \frac{240}{x 4}$ |
| 2. Kubus allegrierilerisis | 10 | 165 | FACU | 0 |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals: (A) (B) |
| 4 | | · | | |
| 5 | | . <u> </u> | | Prevalence Index = B/A =3.48 |
| 6 | | | | |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | | | 2 - Dominance Test is >50% |
| 9 | 40 | · | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 20 | 20% of | total cover: | 8 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| 1 Solidago rugosa | 65 | Vaa | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| •• | 05 | Yes | FAC | |
| 2. Phleum pratense | 15 | No | FACU | |
| 3. Dactylis glomerata | 5 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | . <u> </u> | | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | · | | height. |
| 8 | | | | |
| | - | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | |
| _ · · · | 85 | · <u> </u> | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | We advantage Allowed to the second statistics of 0.00 (the |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| , | 0 | | | height. |
| 1. none | 0 | · | | |
| 2 | | | | |
| 3 | | | | |
| 3 | | · <u> </u> | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | - | Tatal O | | Present? Yes No |
| | | = Total Cove | • | |
| 50% of total cover:0 | 20% of | total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
| | , | | | |
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| Depth | Matrix | | Redo | ox Features | | | | |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| inches) | Color (moist) | % | Color (moist) | <u>%</u> Type ¹ | Loc ² | Texture | Remark | S |
| 0-6 | 5YR 4/3 | 100 | | | | SIC | | |
| 6-18 | 5YR 4/4 | 100 | | | | SIC | | |
| | | | | | | | | |
| | | | | | - <u> </u> | | | |
| | | | | | | | | |
| Гуре: С=С | Concentration, D=Deple | etion, RM= | Reduced Matrix, M | S=Masked Sand G | rains. | ² Location: PL=Por | | |
| Histosc Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick E | Epipedon (A2) Histic (A3) Hen Sulfide (A4) ed Layers (A5) Huck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) | . , | Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre | elow Surface (S8) (urface (S9) (MLRA ed Matrix (F2) atrix (F3) Surface (F6) ırk Surface (F7) essions (F8) | 147, 148) | 2 cm M 148) Coast F (MLF Piedmo (MLF Very Sh | for Problematic uck (A10) (MLR/ Prairie Redox (A1 RA 147, 148) unt Floodplain So RA 136, 147) hallow Dark Surfa Explain in Remar | A 147) 6) ils (F19) ace (TF12) |
| MLR Sandy Sandy | Mucky Mineral (S1) (L l 3 A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | KK N, | MLRA 13 Umbric Surfa Piedmont Flo | nese Masses (F12) 36) ace (F13) (MLRA 1 oodplain Soils (F19 Material (F21) (ML I | 36, 122)) (MLRA 14 | 8) wetland | s of hydrophytic v hydrology must b isturbed or proble | e present, |
| | Layer (if observed): | | | | VA 121, 141 | | | smatto. |
| Type: | | | | | | | | |
| | nches): | | | | | Hydric Soil Prese | ent? Yes | No 🖌 |
| Doput (ii | | | | | | | | |



Upland data point wpoy001_u facing south



Upland data point wpoy001_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas County | Sampling Date: 3/9/2016 |
|----------------------------------------------------------|-------------------------------------------------|------------------------------------------------|
| Applicant/Owner: Dominion | Stat | e: <u>WV</u> Sampling Point: <u>wpoe003e_w</u> |
| Investigator(s): CG, AS | Section, Township, Range: No PLSS | |
| Landform (hillslope, terrace, etc.): drainage | Local relief (concave, convex, none): <u>co</u> | _ |
| Subregion (LRR or MLRA): <u>N</u> La | at: <u>38.3952184</u> Long: <u>-80.04721</u> | 576 Datum: WGS 1984 |
| Soil Map Unit Name: | N | WI classification: None |
| Are climatic / hydrologic conditions on the site typical | for this time of year? Yes <u>V</u> No (If no, | explain in Remarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are "Normal Circu | mstances" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If needed, explain | any answers in Remarks.) |
| | | |

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

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

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect) | Wetland Hydrology Present? Yes <u>V</u> No |
| Remarks: | |
| | |

Sampling Point: wpoe003e_w

| · · | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| 3 | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| | | | · · · · · · · · · · · · · · · · · · · | |
| 4 | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC:100 (A/B) |
| 6 | | | | Development in development of |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of:Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species x 1 = 100 |
| 15 | 2070 01 | | | FACW species $5 	 x 2 = 10$ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FAC species $0 	 x^3 = 0$ |
| 1 | | | | |
| 2 | | | | FACU species $x 4 = 0$ |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals: 105 (A) 110 (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =1.04 |
| 6 | | · | . <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | · | | ∠ 2 - Dominance Test is >50% |
| 9 | 0 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | = Total Cove | r O | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | <u> </u> | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Carex prasina | 60 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Leersia oryzoides | 40 | Yes | OBL | |
| | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| | | · | | be present, unless disturbed or problematic. |
| 4 | | · | | Definitions of Four Vegetation Strata: |
| 5 | | · | | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | · | | |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 105 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 52.5 | | 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 | | | | |
| 5 | | · | | Hydrophytic |
| J | | | | Vegetation Present? Yes <u>Ves</u> No |
| | | = Total Cove | • | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| | | | | |
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| | | | | |
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| Depth Matrix | Red | ox Features | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| (inches) Color (moist) | % Color (moist) | %Тур | | Texture | Remarks |
| 0-14 5YR 3/2 | 95 5YR 3/4 | 5 | PL | C | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | · | | | |
| Type: C=Concentration, D=Depletion | on, RM=Reduced Matrix, N | /IS=Masked Sand | Grains. | ² Location: PL=Pore | |
| lydric Soil Indicators: | | | | Indicators for | or Problematic Hydric Soils ³ : |
| Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) | Thin Dark S | ce (S7) Below Surface (S8 Surface (S9) (MLF /ed Matrix (F2) | , . . | 148) Coast Pr (MLR | ck (A10) (MLRA 147) airie Redox (A16) A 147, 148) t Floodplain Soils (F19) |
| _ Stratified Layers (A5) | Depleted M | | | | A 136, 147) |
| 2 cm Muck (A10) (LRR N) | Redox Dark | . , | | • | allow Dark Surface (TF12) |
| Depleted Below Dark Surface (A | | ark Surface (F7) | | | xplain in Remarks) |
| | Redox Dep | ressions (F8) | | | |
| _ Thick Dark Surface (A12) | N. Iron-Manga | nese Masses (F1 | 2) (LRR N. | | |
| _ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1) (LRR | <u> </u> | | , , | | |
| _ Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) | MLRA 1 | 36) | | | |
| Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) Sandy Gleyed Matrix (S4) | MLRA 1 Umbric Surf | 36) face (F13) (MLR | 136, 122) | | of hydrophytic vegetation and |
| Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) | MLRA 1 Umbric Surf Piedmont F | 36) face (F13) (MLR loodplain Soils (F | 136, 122) 19) (MLRA 14 | 18) wetland h | vdrology must be present, |
| Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) | MLRA 1 Umbric Surf Piedmont F | 36) face (F13) (MLR | 136, 122) 19) (MLRA 14 | 18) wetland h | |
| Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Restrictive Layer (if observed): | MLRA 1 Umbric Surf Piedmont F | 36) face (F13) (MLR loodplain Soils (F | 136, 122) 19) (MLRA 14 | 18) wetland h | vdrology must be present, |
| Sandy Mucky Mineral (S1) (LRR MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) | MLRA 1 Umbric Surf Piedmont F | 36) face (F13) (MLR loodplain Soils (F | 136, 122) 19) (MLRA 14 | 18) wetland h | vdrology must be present, turbed or problematic. |



Photo 1 Wetland data point wpoe003e_w facing south



Photo 2 Wetland data point wpoe003e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pocaho | ontas County | Sampling Date: 3/9/2016 |
|---------------------------------------------------------------------|----------------------------|-----------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe003_u |
| Investigator(s): CG, AS | Section, Township, F | Range: No PLSS in this area | |
| Landform (hillslope, terrace, etc.): slope | | onvex, none): <u>none</u> | - |
| Subregion (LRR or MLRA): N Lat: 38.39 | 518929 L | .ong: <u>-80.04726954</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for this t | me of year? Yes <u></u> No | | Remarks.) |
| Are Vegetation, Soil, or Hydrology sig | nificantly disturbed? Ar | e "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nat | urally 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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | <u>v</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| 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 <u><</u> Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |

Sampling Point: wpoe003_u

| , , , , , , , , , , , , , , , , , , , | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|-----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size:30) | | Species? | | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC:0 (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: (B) |
| 4 | | . <u> </u> | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | | | |
| | | | · | Prevalence Index worksheet: |
| 7 | 0 | · | | Total % Cover of: Multiply by: |
| | | = Total Cove | • | |
| 50% of total cover:0 | 20% of | f total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x 2 = $ |
| _{1.} Crataegus crus-galli | 15 | Yes | FACU | FAC species 10 x 3 = 30 |
| 2 | | | | FACU species $90 	 x 4 = 360$ |
| | | | | UPL species 0 x 5 = 0 |
| 3 | | · | | 100 390 |
| 4 | | · | | Column Totals: (A) (B) |
| 5 | | | | Drovolonce Index D/A 39 |
| 6 | | | | Prevalence Index = B/A =3.9 |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9 | | <u> </u> | | 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 0 | = Total Cove | er | |
| 50% of total cover:7.5 | | f total cover: | 3 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| Solidago canadensis | 70 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Carex blanda | 10 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Rubus allegheniensis | 5 | No | FACU | 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 | | | | One line (Ohmethin Mission lands at a surface line in the |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | - <u> </u> | | m) tall. |
| 10 | | · | <u> </u> | |
| 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: 42. | 5 20% of | f total cover: | 17 | We advertise All was device a practice than 2.00 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| , | | | | |
| 1 | | | | |
| 2 | | · | | |
| 3 | | · | | |
| 4 | | | | I hadron ha stie |
| 5 | | | | Hydrophytic Vegetation |
| | | | | Present? Yes No |
| 50% of total cover: 0 | | = Total Cove | | |
| | | f total cover: | | |
| Remarks: (Include photo numbers here or on a separate a | sheet.) | | | |
| | | | | |
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| Profile Desc | cription: (Describe to | o the depth | n needed to docum | nent the in | dicator o | or confirm | the absence of | of indicato | rs.) | |
|------------------------|-----------------------------------------------------|--------------|--------------------|-------------|--------------------|------------------|----------------------------|-------------|---------------|----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-5 | 5YR 3/3 | 100 | | | | | С | | | |
| 5-14 | 5YR 4/4 | 100 | | | | | С | | | |
| | | | | | | | · · | | | |
| | | <u> </u> | | | | | | | | |
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| | | | | | | <u> </u> | · · | | | |
| | | | | | | | . <u> </u> | | | |
| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL: | =Pore Linii | ng, M=Matrix | |
| Hydric Soil | | * | , | | | | | | | ydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | <u> </u> | m Muck (A | (MLRA | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (M | ILRA 147, | 148) Co | ast Prairie | Redox (A16 |) |
| | istic (A3) | | Thin Dark Su | () | • | 47, 148) | | (MLRA 14 | | |
| | en Sulfide (A4) | | Loamy Gleye | • | 2) | | | | odplain Soils | s (F19) |
| | d Layers (A5) | | Depleted Mat | • • | | | | (MLRA 13 | | |
| | uck (A10) (LRR N) | (| Redox Dark S | | | | | • | Dark Surfac | . , |
| - | d Below Dark Surface ark Surface (A12) | (A11) | Depleted Dar | | | | Oti | ner (Explai | n in Remarks | 5) |
| | Ark Surface (A12) //ucky Mineral (S1) (Ll | | Iron-Mangan | | | | | | | |
| - | A 147, 148) | \i\ i | MLRA 13 | | 3 (I IZ) (I | , | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | • | ILRA 13 | 6, 122) | ³ Indic | ators of h | /drophytic ve | getation and |
| - | Redox (S5) | | Piedmont Flo | | | | | | logy must be | - |
| | d Matrix (S6) | | Red Parent M | • | , , | • | • | • | ed or problen | |
| | Layer (if observed): | | | | / (| | | | | |
| Type: | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil F | Present? | Yes | No 🖌 |
| Remarks: | , | | | | | | | | | _ |
| . comanto. | | | | | | | | | | |



Photo 1 Upland data point wpoe003_u facing south



Photo 2 Upland data point wpoe003_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: F | Pocahontas County | Sampling Date: 3/9/2016 | | | |
|------------------------------------------------------|----------------------------------|------------------------------------------------|----------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe002e_w | | | |
| Investigator(s): CG, AS | Section, Town | Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): drainage | | ave, convex, none): <u>concave</u> | Slope (%): <u>3</u> | | | |
| Subregion (LRR or MLRA): <u>N</u> | Lat: <u>38.38449055</u> | Long: <u>-80.05194882</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classifi | cation: None | | | |
| Are climatic / hydrologic conditions on the site typ | pical for this time of year? Yes | No (If no, explain in F | Remarks.) | | | |
| Are Vegetation, Soil, or Hydrolog | y significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No | | | |
| Are Vegetation, Soil, or Hydrolog | y 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 🖌 | No No No | Is the Sampled Area within a Wetland? | Yes 🥓 No | |
|---------------------------------------------------------------------------------------|-------|----------------|---------------------------------------|----------|--|
| Remarks: | | | | | |

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

Sampling Point: wpoe002e_w

| , , , , , , , , , , , , , , , , , , , | | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---------------------------------------|---------------------------|-------------|-------------------------------|----------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30 |) | | Species? | | |
| | , | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| 1 | | | | | |
| 2 | | | | | Total Number of Dominant |
| 3 | | | | | Species Across All Strata: 1 (B) |
| 4 | | | | | () |
| | | | | | Percent of Dominant Species |
| 5 | | | · | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 6 | | | | | |
| 7. | | | | | Prevalence Index worksheet: |
| | | 0 | Tatal Cava | | Total % Cover of: Multiply by: |
| | 0 | | = Total Cover | 0 | OBL species 15 x 1 = 15 |
| | % of total cover: 0 15 | 20% 01 | total cover: | <u> </u> | 5 40 |
| Sapling/Shrub Stratum (Plot size: |) | | | | FACW species $x = 0$ |
| 1 | | | | | FAC species $x^3 = $ |
| | | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | | |
| 3 | | | · | | UPL species 0 $x = 0$ |
| 4 | | | | | Column Totals: (A) (B) |
| | | | | | |
| 5 | | | | | Prevalence Index = B/A =1.25 |
| 6 | | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | <u> </u> | | |
| 8 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | · | <u> </u> | 2 - Dominance Test is >50% |
| 9 | | | · | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| | | | = Total Cover | | 4 - Morphological Adaptations ¹ (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. Sphagnum sp. |) | 90 | Yes | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | | |
| 2. Carex lupulina | | 15 | No | OBL | |
| _{3.} Solidago gigantea | | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| · • · | | | | | be present, unless disturbed or problematic. |
| 4 | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree Manda de la contrationa de la (7.0 cm) co |
| 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 | | 110 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50 | % of total cover: 55 | 20% of | total cover: | 22 | 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 | | | · | | |
| 3 | | | | | |
| | | | | | |
| 4 | | | · <u> </u> | | Hydrophytic |
| 5 | | | | | Vegetation |
| о. <u></u> | | | | | Dresent? Vec V Ne |
| ⁰ | | | = Total Cover | r | Present? Yes Ves No |
| | | 0 | = Total Cover | | Present? res No |
| 50 | % of total cover:0 | 0 20% of | = Total Cover total cover: | | Present? Tes No |
| | % of total cover:0 | 0 20% of | | | Present? Tes <u>NO</u> |
| 50 | % of total cover:0 | 0 20% of | | | Present? Tes <u>NO</u> |
| 50 | % of total cover:0 | 0 20% of | | | Present? Tes NO |
| 50 | % of total cover:0 | 0 20% of | | | Present? Tes <u>NO</u> |
| 50 | % of total cover:0 | 0 20% of | | | Present? Tes <u>NO</u> |
| 50 | % of total cover:0 | 0 20% of | | | Present? Tes <u>NO</u> |
| 50 | % of total cover:0 | 0 20% of | | | |
| 50 | % of total cover:0 | 0 20% of | | | |
| 50 | % of total cover:0 | 0 20% of | | | |
| 50 | % of total cover:0 | 0 20% of | | | |

| Profile Des | cription: (Describe t | o the depth | needed to docun | nent the in | ndicator | or confirm | the absence | of indicators.) |
|------------------------|-----------------------------------------------------|-------------|-------------------------|-------------|--------------------|------------------|--------------------------|---------------------------------------------------|
| Depth | Matrix | | Redo | x Features | 8 | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-6 | 10YR 4/2 | 100 | | | | | | Peat |
| 6-16 | 10YR 5/1 | 100 | | | | | SIC | |
| | | | | ······ | | | | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion. RM=R | educed Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: P | L=Pore Lining, M=Matrix. |
| Hydric Soil | | | , | | | | | ators for Problematic Hydric Soils ³ : |
| Histoso | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | ce (S8) (M | ILRA 147, | 148) C | coast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | , | -2) | | P | iedmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mat | . , | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | ``` | , | | | ery Shallow Dark Surface (TF12) |
| · | d Below Dark Surface | (A11) | Depleted Dar | | | | C | Other (Explain in Remarks) |
| | ark Surface (A12) | | Redox Depre | | , | | | |
| - | /lucky Mineral (S1) (L A 147, 148) | KK N, | Iron-Mangane MLRA 13 | | es (F12) (I | LKK N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | 6 122) | ³ Ind | icators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | | | | | tland hydrology must be present, |
| - | d Matrix (S6) | | Red Parent M | • | , , | • | • | less disturbed or problematic. |
| | Layer (if observed): | | | | / (| , | , · | |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil | Present? Yes 🖌 No |
| Remarks: | , | | | | | | , | |
| . contanto. | | | | | | | | |
| | | | | | | | | |



Photo 1 Wetland data point wpoe002e_w facing east



Photo 2 Wetland data point wpoe002e_w facing west

| _ City/County: Pocahontas County Samplin | g Date: 3/9/2016 |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | ling Point: <u>wpoe002_u</u> |
| | |
| ocal relief (concave, convex, none): <u>convex</u> | Slope (%): <u>7</u> |
| e Long: <u>-80.05194892</u> | Datum: WGS 1984 |
| NWI classification: Not | one |
| year? Yes 🖌 No (If no, explain in Remarks.) | |
| ly disturbed? Are "Normal Circumstances" present? | Yes 🖌 No |
| oroblematic? (If needed, explain any answers in Rem | narks.) |
|) : | State: <u>WV</u> Samp Section, Township, Range: <u>No PLSS in this area</u> ocal relief (concave, convex, none): <u>convex</u> Long: <u>-80.05194892</u> NWI classification: <u>No</u> year? Yes <u>V</u> No (If no, explain in Remarks.) y disturbed? Are "Normal Circumstances" present? |

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 | <u>v</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| 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 <u><</u> Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |

Sampling Point: wpoe002_u

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|---------------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | <u>Status</u> | Number of Dominant Species |
| 1. Acer saccharum | 45 | Yes | FACU | That Are OBL, FACW, or FAC:0 (A) |
| 2. Tsuga canadensis | 45 | Yes | FACU | |
| | | | <u> </u> | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:0 (A/B) |
| 6. | | | | |
| | | | | Prevalence Index worksheet: |
| 1 | 90 | | | Total % Cover of: Multiply by: |
| | = | = Total Cover | 18 | |
| 50% of total cover: <u>45</u> | 20% of | total cover: | 10 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FAC VV species $x = 2$ |
| _{1.} Acer saccharum | 10 | Yes | FACU | FAC species $0 	 x 3 = 0$ |
| | | | | FACU species x 4 = 580 |
| 2 | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | 145 580 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| | | | | Prevalence Index = B/A =4 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 10 | = Total Cover | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover:5 | | total cover: | 2 | 4 - Morphological Adaptations ¹ (Provide supporting |
| = | 20 % 01 | | | data in Remarks or on a separate sheet) |
| | 00 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Dendrolycopodium obscurum | 30 | Yes | FACU | |
| _{2.} Carex siccata | 15 | Yes | FACU | 4 |
| 3 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree Mondy plants evaluating vision 2 in (7.6 cm) or |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | |
| 8 | | | | Sapling/Shrub - Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 45 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 22.5 | | 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 |
| | | = 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.) | | | |
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| Profile Desc | cription: (Describe to | o the dept | h needed to docum | nent the in | dicator o | or confirm | the absence of | f indicators.) | |
|--------------|----------------------------------|-------------|-------------------------|-------------|-------------------|------------------|--------------------|--------------------------|-------------------------------|
| Depth | Matrix | | | x Features | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remai | rks |
| 0-14 | 5YR 4/4 | 100 | | | | | C | | |
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| | oncentration, D=Deple | etion, RM=l | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | | Pore Lining, M=Ma | |
| Hydric Soil | Indicators: | | | | | | Indicate | ors for Problemation | : Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | · · · | | | | m Muck (A10) (MLR | RA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | | | | 148) <u>Coa</u> | ast Prairie Redox (A | .16) |
| | istic (A3) | | Thin Dark Su | . , | • | 47, 148) | • | MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | | dmont Floodplain S | oils (F19) |
| | d Layers (A5) | | Depleted Mar | . , | | | • | MLRA 136, 147) | |
| | uck (A10) (LRR N) | <i></i> | Redox Dark | · · · | , | | | y Shallow Dark Sur | . , |
| | d Below Dark Surface | (A11) | Depleted Dar | | | | Oth | er (Explain in Rema | arks) |
| | ark Surface (A12) | | Redox Depre | | , | | | | |
| - | /lucky Mineral (S1) (L l | KK N, | Iron-Mangan | | s (F12) (I | _RR N, | | | |
| | A 147, 148) | | MLRA 13 Umbric Surfa | , | | 6 400) | ³ India | ators of hydrophytic | vegetation and |
| | Gleyed Matrix (S4) Redox (S5) | | Piedmont Flo | · · · | | | | and hydrology must | - |
| | Matrix (S6) | | Red Parent N | • | • • | • | | ss disturbed or prob | |
| | Layer (if observed): | | | | | ~ 127, 147 |) unies | | iematic. |
| | Layer (il observeu). | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil P | resent? Yes | No |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |



Photo 1 Upland data point wpoe002_u facing east



Photo 2 Upland data point wpoe002_u facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Por | cahontas County | _ Sampling Date: 7/12/2016 |
|------------------------------------------------------------------|--------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe215e_w |
| Investigator(s): CG, JM | Section, Townsh | nip, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): drainage | | e, convex, none): <u>concave</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): N Lat: 38. | 38426464 | Long: <u>-80.04673503</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: PEM |
| Are climatic / hydrologic conditions on the site typical for thi | s 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 _ ✔ No Yes _ ✔ No Yes _ ✔ No | Is the Sampled Area within a Wetland? | Yes 🥓 No |
|---------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------|----------|
| Remarks: | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| | |
| Water Table Present? Yes <u>V</u> No Depth (inches): 4 | |
| Saturation Present? Yes <u>Ves</u> No <u>Depth (inches)</u> : 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u>V</u> No |
| Saturation Present? Yes <u>Ves</u> No <u>Depth (inches)</u> | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No <u>Depth (inches)</u> : 0 (includes capillary fringe) | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |

Sampling Point: wpoe215e_w

| | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|-------------------------------------------------------|----------|----------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | % Cover | Species? | | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | · | | Percent of Dominant Species |
| 5 | | <u> </u> | | That Are OBL, FACW, or FAC:100 (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | 0 | | | Total % Cover of:Multiply by: |
| 0 | | = Total Cover | 0 | $OBL species \qquad 0 \qquad x \ 1 = 0$ |
| 50% of total cover:0 | 20% of | f total cover: | 0 | 115 000 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x^2 = \frac{200}{2}$ |
| 1. none | 0 | | | FAC species $x^3 = $ |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| | | | | UPL species 0 x 5 = 0 |
| 3 | | · | | 115 220 |
| 4 | | · | | Column Totals: (A) (B) |
| 5 | | | | Drovolonoo Indov D/A 2 |
| 6 | | | | Prevalence Index = B/A = 2 |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | ✓ 2 - Dominance Test is >50% |
| 9 | | <u> </u> | | \checkmark 3 - Prevalence Index is $\leq 3.0^1$ |
| | 0 | = Total Cover | | |
| 50% of total cover:0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Impatiens capensis | 40 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| ••• | | | | |
| 2. Leersia virginica | 40 | Yes | FACW | ¹ Indiantors of hydric coll and watland hydrology must |
| _{3.} Boehmeria cylindrica | 20 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| Δ Viola cucullata | 15 | No | FACW | |
| " | | - <u></u> | | Definitions of Four Vegetation Strata: |
| 5 | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | · | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | <u></u> | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 115 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 57. | | f total cover: | | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| none | 0 | | | height. |
| 1 | | · | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | - <u></u> | | Hydrophytic |
| 5 | | · | | Vegetation Present? Yes <u>V</u> No |
| | - | = Total Cover | ~ | |
| 50% of total cover:0 | 20% of | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate | sheet.) | | | 1 |
| | | | | |
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| Profile Desc | cription: (Describe t | o the dept | h needed to docur | nent the ir | ndicator | or confirm | the absence of in | dicators.) |) |
|------------------------|------------------------------|-------------|-------------------|--------------|--------------------|------------------|------------------------------|--------------|------------------------------------|
| Depth | Matrix | | | x Features | <u>.</u> | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks |
| 0-14 | 7.5YR 4/2 | 100 | | | | | SL | | |
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| ¹ Type: C=C | oncentration, D=Depl | etion, RM=l | Reduced Matrix, M | S=Masked | Sand Gra | ains. | ² Location: PL=Po | re Lining, | M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indicators | for Probl | ematic Hydric Soils ³ : |
| <u> </u> | (A1) | | Dark Surface | e (S7) | | | 2 cm M | /luck (A10 |) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (M | LRA 147, | 148) Coast | Prairie Re | dox (A16) |
| Black H | istic (A3) | | Thin Dark Su | ırface (S9) | (MLRA 1 | 47, 148) | (ML | RA 147, 1 | 48) |
| 👱 Hydroge | en Sulfide (A4) | | Loamy Gleye | ed Matrix (F | -2) | | Piedm | ont Floodp | olain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | • | RA 136, 1 | |
| | uck (A10) (LRR N) | | Redox Dark | • | , | | | | ark Surface (TF12) |
| · | d Below Dark Surface | e (A11) | Depleted Da | | | | Other | (Explain ir | n Remarks) |
| | ark Surface (A12) | | Redox Depre | • | | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | . , . | | | | - | ophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | | | | | | / must be present, |
| | d Matrix (S6) | | Red Parent N | Material (F2 | 21) (MLR/ | A 127, 147 |) unless o | disturbed of | or problematic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | | , |
| Depth (in | ches): | | | | | | Hydric Soil Pres | sent? Y | es 🖍 No |
| Remarks: | | | | | | | • | | |
| | | | | | | | | | |
| | | | | | | | | | |



Wetland data point wpoe215e_w facing south



Wetland data point wpoe215e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: 7/12/2016 | | |
|-----------------------------------------------------------------|--------------------------|--------------------------------------|---------------------------|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe215_u | | |
| Investigator(s): CG, JM | Section, Townshi | p, Range: <u>No PLSS in this are</u> | | | |
| Landform (hillslope, terrace, etc.): slope | | , convex, none): <u>convex</u> | Slope (%): <u>2</u> | | |
| Subregion (LRR or MLRA): N Lat: 38. | .38431065 | Long: <u>-80.04675263</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classifi | cation: UPL | | |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in I | 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 | <u> イ イ イ イ </u> | Is the Sampled Area within a Wetland? | Yes | No | <u>v</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|------------------------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| 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 <u></u> | |
| Saturation 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 inspective) | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) ✓ 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 insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |
| Saturation Present? Yes No Concern Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insperimentation Remarks: | |

Sampling Point: wpoe215_u

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| Acer saccharum | 60 | Yes | FACU | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| 1 | | · | | |
| 2 | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata:3 (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | 60 | | <u> </u> | Total % Cover of: Multiply by: |
| 20 | | = Total Cove | r 12 | $\begin{array}{c c} \hline OBL \text{ species} & \hline 0 \\ \hline x \ 1 = \hline 0 \\ \hline \end{array}$ |
| 50% of total cover: <u>30</u> | 20% of | total cover: | 12 | |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species $x^2 = 0$ |
| _{1.} Fagus grandifolia | 10 | Yes | FACU | FAC species $x_3 = $ |
| 2 | | | | FACU species x 4 =700 |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | Column Totals: 175 (A) 700 (B) |
| 4 | | | <u> </u> | |
| 5 | | . <u> </u> | | Prevalence Index = B/A =4 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | · | <u> </u> | 3 - Prevalence Index is ≤3.0 ¹ |
| | 10 | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 5 | 20% of | total cover: | 2 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1 Dennstaedtia punctilobula | 90 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2 Potentilla simplex | 15 | No | FACU | |
| | | · | 1700 | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Sommono or roar rogonation or ana |
| | | · | | Tree – 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 | | · | | 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. | | | | |
| | 105 | Tatal Oa | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 52.5 | | = Total Cove | | or size, and woody plants less than 5.20 it tail. |
| | 20% 01 | total cover: | 21 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| 1. none | 0 | . <u> </u> | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | · | | Hydrophytic |
| 5 | | · | <u> </u> | Vegetation |
| | 0 | = Total Cove | | Present? Yes No |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | 1 |
| | , | | | |
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| Profile Des | cription: (Describe t | o the depth | n needed to docur | nent the ir | ndicator | or confirm | n the absence of indicators.) | |
|-------------|----------------------------------------------------|-------------|------------------------|-------------|-------------------|------------------|-------------------------------------------------------|---|
| Depth | Matrix | | Redo | x Features | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-14 | 5YR 3/3 | 100 | | | | | CL | |
| | | | | | | | | |
| | | <u> </u> | | | | | | |
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| | | <u> </u> | | | | | | |
| | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ | : |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | | | | , 148) Coast Prairie Redox (A16) | |
| | istic (A3) | | Thin Dark Su | | | 47, 148) | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | Piedmont Floodplain Soils (F19) | |
| — | d Layers (A5) | | Depleted Ma | () | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | / . | Redox Dark | | | | Very Shallow Dark Surface (TF12) | |
| | d Below Dark Surface | (A11) | Depleted Da | | . , | | Other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | | | | | |
| | Mucky Mineral (S1) (L A 147, 148) | KK N, | Iron-Mangan MLRA 13 | | es (F12) (| LRR N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | MI DA 12 | 6 122) | ³ Indicators of hydrophytic vegetation and | |
| | Redox (S5) | | Piedmont Flo | | | | | 1 |
| | d Matrix (S6) | | Red Parent N | • | • • | • | , , , | |
| | Layer (if observed): | | | | | ~ 127, 147 | | |
| Type: | | | | | | | | |
| | | | | | | | | |
| | iches): | | | | | | Hydric Soil Present? Yes No | |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Upland data point wpoe215_u facing north



Upland data point wpoe215_u facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: 3/8/2016 | | |
|------------------------------------------------------------------|--------------------------|---------------------------------------|----------------------------|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe001e_w | | |
| Investigator(s): CG, AS | Section, Townshi | p, Range: <u>No PLSS in this area</u> | | | |
| Landform (hillslope, terrace, etc.): slope | | , convex, none): <u>concave</u> | Slope (%): <u>10</u> | | |
| Subregion (LRR or MLRA): N Lat: 38 | 8.37590774 | Long: <u>-80.05838141</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classific | cation: None | | |
| Are climatic / hydrologic conditions on the site typical for the | his time of year? Yes | No (If no, explain in R | emarks.) | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" p | oresent? 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: | | | | | |

| 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 | bils (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): | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):4 | |
| Water Table Present? Yes | Wetland Hydrology Present? Yes <u></u> |
| Water Table Present? Yes V Depth (inches): 4 Saturation Present? Yes V Depth (inches): 0 (includes capillary fringe) V V Depth (inches): 0 | |
| Water Table Present? Yes | |
| Water Table Present? Yes | |
| Water Table Present? Yes V Depth (inches): 4 Saturation Present? Yes V Depth (inches): 0 (includes capillary fringe) V V Depth (inches): 0 | |
| Water Table Present? Yes | |

Sampling Point: wpoe001e_w

| 1 | | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|-----------------------------------|-------------------------|----------|--------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: | 30 | | Species? | | |
| | / | /0 0010. | | Clarad | Number of Dominant Species That Are OBL_EACW_or_EAC: 2 (A) |
| 1 | | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | <u> </u> | | 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 | | | | | |
| | | | | | Prevalence Index worksheet: |
| 7 | | | | | |
| | | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| | 50% of total cover: 0 | 20% of | f total cover: | 0 | OBL species x 1 =70 |
| | 15 | | <u>_</u> | | FACW species 25 x 2 = 50 |
| Sapling/Shrub Stratum (Plot si | ze:) | | | | 0 |
| 1 | | | | | FAC species $x_3 = $ |
| 2 | | | | | FACU species x 4 =0 |
| | | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | | 95 120 |
| 4 | | | | | Column Totals: (A) (B) |
| | | | | | |
| 5 | | | • | | Prevalence Index = B/A =1.26 |
| 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 ¹ |
| | | 0 | = Total Cove | r | |
| | 50% of total cover: 0 | | f total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | | 20 % 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: | 5) | | | | |
| _{1.} Carex prasina | | 70 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Juncus effusus | | 25 | Yes | FACW | |
| | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | | be present, unless disturbed or problematic. |
| 4 | | | | | |
| | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | · | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | | height. |
| | | | | | 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. |
| 10 | | | | | , |
| 11 | | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | | | | Herb – All herbaceous (hon-woody) plants, regardless |
| | | 95 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| | 50% of total cover: 47. | | | | |
| | | | = Total Cove f total cover: | | |
| Woody Vine Stratum (Plot size | | | | | of size, and woody plants less than 3.28 ft tall. |
| | e: <u>30</u>) | 5 20% of | f total cover:_ | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 1 | e:) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 1 2 | s: <u>30</u>) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 1 | s: <u>30</u>) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 1 2 3 | e: <u>30</u>) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 1 2 3 4 | 30) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 1 2 3 | 30) | 5 20% of | f total cover: | | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 | 30) | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 1 2 3 4 | s:) | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 1 2 3 4 5 | 50% of total cover:0 | 5 20% of | f total cover: | 19 | of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |

| Profile Des | cription: (Describe to | the depth i | needed to docum | ent the i | ndicator o | or confirm | the absence | of indicator | s.) | |
|------------------------|-------------------------------|-------------|------------------|------------|--------------------|------------------|---------------------------|----------------|----------------------|---------------------------|
| Depth | Matrix | | | Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | | Remarks | |
| 0-1 | 7.5YR 3/2 | 100 | | | | | CL | | | |
| 1-16 | 5YR 5/3 | 93 7. | 5YR 3/4 | 7 | С | PL | CL | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | tion. RM=Re | duced Matrix. MS | =Masked | Sand Gra | ins. | ² Location: PL | _=Pore Lining | a. M=Matrix. | |
| Hydric Soil | | | , ···- | | | | | | blematic Hyd | dric Soils ³ : |
| Histoso | l (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A | 10) (MLRA 1 4 | 7) |
| Histic E | pipedon (A2) | | Polyvalue Belo | | ce (S8) (M | LRA 147, | | oast Prairie F | | |
| Black H | istic (A3) | | Thin Dark Sur | face (S9) | (MLRA 1 | 47, 148) | | (MLRA 147 | , 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleyed | d Matrix (| F2) | | Pi | edmont Floo | dplain Soils (| F19) |
| Stratifie | d Layers (A5) | | Depleted Matr | ix (F3) | | | | (MLRA 136 | , 147) | |
| | uck (A10) (LRR N) | | Redox Dark S | urface (F | 6) | | | • | Dark Surface | (TF12) |
| - | d Below Dark Surface | (A11) | Depleted Dark | | | | O | ther (Explain | in Remarks) | |
| | ark Surface (A12) | | Redox Depres | | , | | | | | |
| | Mucky Mineral (S1) (LF | RR N, | Iron-Mangane | | es (F12) (l | .RR N, | | | | |
| | A 147, 148) | | MLRA 136 | | | | 3 | | | |
| | Gleyed Matrix (S4) | • | Umbric Surfac | . , . | | | | • | Irophytic vege | |
| | Redox (S5) | | Piedmont Floo | | | | | • | gy must be p | |
| | d Matrix (S6) | | Red Parent M | aterial (F | 21) (MLR/ | A 127, 147 |) uni | ess disturbed | d or problema | tiC. |
| | Layer (if observed): | | | | | | | | | |
| Туре: | | | - | | | | | | | |
| Depth (in | ches): | | - | | | | Hydric Soil | Present? | Yes 🔽 | No |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |
| I | | | | | | | | | | |



Photo 1 Wetland data point wpoe001e_w facing west



Photo 2 Wetland data point wpoe001e_w facing south

| City/County: Pocahontas County Sampling Date: 3/8/2016 |
|--------------------------------------------------------------------------|
| State: <u>WV</u> Sampling Point: <u>wpoe001_u</u> |
| Section, Township, Range: No PLSS in this area |
| Local relief (concave, convex, none): <u>convex</u> Slope (%): <u>15</u> |
| 8 Long: <u>-80.05832857</u> Datum: WGS 1984 |
| NWI classification: None |
| year? Yes 🔽 No (If no, explain in Remarks.) |
| ntly disturbed? Are "Normal Circumstances" present? Yes <u>/</u> No |
| problematic? (If needed, explain any answers in Remarks.) |
| 9 of |

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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | v |
|---------------------------------------------------------------------------------------|-------------------|-------------|---------------------------------------|-----|----|---|
| Remarks: | | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) True Aquatic Plants (B14) | Sparsely Vegetated Concave Surface (B8) |
| High Water Table (A2) Hydrogen Sulfide Odor (C1) | Drainage Patterns (B10) |
| Saturation (A3) Oxidized Rhizospheres on Living Roots (| C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) | Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u></u> | |
| Water Table Present? Yes No <u></u> | |
| | nd Hydrology Present? Yes No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), it | f available: |
| | |
| Remarks: | |
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Sampling Point: wpoe001_u

| | | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: | 30) | | Species? | | |
| | | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| 1 | | | | <u> </u> | That Are OBL, FACW, or FAC: (A) |
| 2 | | | · | | Total Number of Dominant |
| 3 | | | | | Species Across All Strata: 4 (B) |
| 4 | | | | | |
| | | | | | Percent of Dominant Species |
| 5 | | | | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 6 | | | <u> </u> | | |
| 7 | | | | | Prevalence Index worksheet: |
| | | 0 | Total Cava | - | Total % Cover of: Multiply by: |
| | 500/ // / | | = Total Cove | r 0 | OBL species x 1 =0 |
| | 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| Sapling/Shrub Stratum (Plot s | ize:15) | | | | FAC w species $x 2 = $ |
| _{1.} Crataegus douglasii | | 30 | Yes | | FAC species $0 	 x 3 = 0$ |
| | | | | | FACU species 30 x 4 = 120 |
| 2 | | | <u></u> | | 10 50 |
| 3 | | | | | UPL species X 5 = |
| 4 | | | | | Column Totals: (A) (B) |
| | | | | | |
| 5 | | | · | | Prevalence Index = $B/A = 4.25$ |
| 6 | | | | | |
| 7 | | | _ | _ | Hydrophytic Vegetation Indicators: |
| | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | | 2 - Dominance Test is >50% |
| 9 | | | | | |
| | | 0 | = Total Cove | r | 3 - Prevalence Index is ≤3.0 ¹ |
| | 50% of total cover: 15 | | f total cover: | 6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | - | 20% 0 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: | 5) | | | | . , |
| _{1.} Rubus allegheniensis | | 25 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Crataegus douglasii | | 10 | Yes | | |
| 3. Daucus carota | | 10 | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | | |
| | | | Yes | UPL | be present, unless disturbed or problematic. |
| 4. Spiraea japonica | | 5 | No | FACU | be present, unless disturbed or problematic. |
| 4. Spiraea japonica | | 5 | No | | |
| 4. Spiraea japonica 5 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: |
| 4. Spiraea japonica | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 4. Spiraea japonica 5 6 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: |
| 4. Spiraea japonica 5 6 7 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| ASpiraea japonica 5 6 7 8 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less |
| 4. Spiraea japonica 5 6 7 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| ASpiraea japonica 5 6 7 8 | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. | | 5 | No | | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 4. Spiraea japonica 5. 6. 7. 8. 9. | | 5 | No | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. | | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. | 50% of total cover:25 | 5 | No | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. | 50% of total cover:25 | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| Spiraea japonica 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size) | 50% of total cover:25 e:30) | 5 | No No = Total Cover:_ | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| A. Spiraea japonica 5. | 50% of total cover: <u>25</u> e: <u>30</u>) | 5 | No No Total Cover:_ | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| Spiraea japonica 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size | 50% of total cover: <u>25</u> e: <u>30</u>) | 5 | No No Total Cover:_ | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size 1. 2. | 50% of total cover: <u>25</u> e: <u>30</u>) | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size 1. 2. 3. | 50% of total cover: <u>25</u> e: <u>30</u>) | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 4. Spiraea japonica 5. . 6. . 7. . 8. . 9. . 10. . 11. . Woody Vine Stratum (Plot size 1. . 2. . 3. . 4. . | 50% of total cover: 25 e: 30) | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 4. Spiraea japonica 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size 1. 2. 3. | 50% of total cover: 25 e: 30) | 5 | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. . 6. . 7. . 8. . 9. . 10. . 11. . Woody Vine Stratum (Plot size 1. . 2. . 3. . 4. . | 50% of total cover: 25 e: 30) | | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 4. Spiraea japonica 5. . 6. . 7. . 8. . 9. . 10. . 11. . Woody Vine Stratum (Plot size 1. . 2. . 3. . 4. . | 50% of total cover: <u>25</u> e: <u>30</u>) | 5 | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. . 6. . 7. . 8. . 9. . 10. . 11. . Woody Vine Stratum (Plot size 1. . 2. . 3. . 4. . | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
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| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 4. Spiraea japonica 5. | 50% of total cover:25 e:30) 50% of total cover:0 | 5 5 50 20% of 20% of 20% of | No No Image: Second | FACU | be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |

| Profile Desc | cription: (Describe t | o the depth | needed to docur | nent the ir | ndicator o | or confirm | the absence o | f indicato | rs.) | |
|--------------|------------------------------|-------------|------------------|--------------|--------------------|------------------|----------------------------|-------------|------------------------------|----------------------------|
| Depth | Matrix | | | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 7.5YR 3/3 | 100 | | | | | SICL | | | |
| 4-16 | 5YR 4/3 | 100 | | | | | SIC | | | |
| | | | | | | | | | | |
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| | oncentration, D=Deple | tion PM_E | Poducod Matrix M | -Mackad | Sand Gr | vine | ² Location: PL= | -Poro Linii | a M-Matrix | |
| Hydric Soil | | | | | Sanu Gra | aii 15. | | | | ydric Soils ³ : |
| Histosol | | | Dark Surface | (\$7) | | | | | (MLRA | - |
| | pipedon (A2) | | Polyvalue Be | | e (S8) (M | LRA 147. | | | Redox (A16) | |
| | istic (A3) | | Thin Dark Su | | | | | MLRA 14 | • • | , |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | =2) | | Pie | dmont Flo | odplain Soils | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (| MLRA 13 | 6, 147) | |
| | uck (A10) (LRR N) | | Redox Dark | | | | | • | Dark Surfac | . , |
| - | d Below Dark Surface | (A11) | Depleted Dar | | | | Oth | ier (Explai | n in Remarks | 6) |
| | ark Surface (A12) | | Redox Depre | | , | | | | | |
| - | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | | | |
| | A 147, 148) | | MLRA 13 | • | | C 400) | 31 | | | notation and |
| - | Gleyed Matrix (S4) | | Umbric Surfa | | | | | | | getation and |
| | Redox (S5) d Matrix (S6) | | Piedmont Flo | • | , , | • | • | • | ogy must be ed or problen | |
| | Layer (if observed): | | | nateriai (F2 | | A 127, 147 | | | | |
| Type: | | | | | | | | | | |
| · · · | | | | | | | | | Vaa | |
| Depth (in | cnes): | | | | | | Hydric Soil P | resent? | Yes | No |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Photo 1 Upland data point wpoe001_u facing south



Photo 2 Upland data point wpoe001_u facing east

| Project/Site: Atlantic Coast Pipeline | City/County: F | Pocahontas County | _ Sampling Date: 5/27/2016 |
|---------------------------------------------------------------------------|------------------|------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | |
| Investigator(s): GB, KO | Section, Towr | nship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): ridge saddle | | ave, convex, none): <u>concave</u> | |
| Subregion (LRR or MLRA): N Lat: 38.374714 | 79 | Long: <u>-80.06143535</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| Are climatic / hydrologic conditions on the site typical for this time of | of year? Yes 🗹 | No (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology significa | antly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally | y problematic? | (If needed, explain any answe | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | ving sampling | point locations, transects | 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 PEO wetland located in der | ression on ridge | saddle along Buzza | rd Ridge, hydrology from per | ched water abo | ve clay horizon NCWAM= basin |

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) |
| 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) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🖌 Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| • | Wetland Hydrology Present? Yes <u>/</u> No |
| Saturation Present? Yes <u><</u> No <u>Depth</u> (inches): <u>0</u> | |
| (includes capillary fringe) | |
| | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |

Sampling Point: wpoa405f_w

| 00 | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|-----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | 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 Dominant |
| 3. Betula alleghaniensis | 15 | Yes | FAC | Species Across All Strata: 7 (B) |
| 4. Quercus rubra | 5 | No | FACU | |
| 5. Acer saccharum | 5 | No | FACU | Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/E |
| 6. | | | | |
| 7. | | | | Prevalence Index worksheet: |
| · | 55 | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover: 27.5 | | total cover: | 11 | OBL species X 1 = 45 |
| Sapling/Shrub Stratum (Plot size: 15) | | <u>-</u> | | FACW species 45 x 2 = 90 |
| 1 Viola cucullata | 10 | Yes | FACW | FAC species X 3 = 117 |
| 2. Betula alleghaniensis | 5 | Yes | FAC | FACU species 19 x 4 = 76 |
| 3. Acer rubrum | 4 | No | FAC | UPL species $0 \times 5 = 0$ |
| 4. Fagus grandifolia | 4 | No | FACU | Column Totals: <u>148</u> (A) <u>328</u> (B) |
| | 3 | | | |
| 5. Picea rubens | | 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 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 30 | = Total Cove | er | |
| 50% of total cover:15 | 20% of | total cover: | 6 | 4 - Morphological Adaptations ¹ (Provide supportin |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Carex diandra | 20 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Carex gynandra | 15 | Yes | OBL | |
| 3. Ranunculus abortivus | 10 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 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 cm) of |
| | | | | more in diameter at breast height (DBH), regardless o |
| 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: <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 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | I hadron ha dia |
| 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 | | | - | 1 |
| | / | | | |
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| Depth | Matrix | | Redo | x Feature | S | | | | |
|-----------------|---------------------------------------------|-----------------|------------------------|------------|---------------------|------------------|-----------------------------|-----------------------------------------------------|----------------------|
| (inches) 0-3 | Color (moist) 5YR 3/2 | <u>%</u> 100 | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> CL | Remarks | |
| | · <u> </u> | | | | | | | | |
| 3-18 | 5YR 4/2 | 90 | 5YR 4/6 | 10 | C | M | C | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| Гуре: C=C | Concentration, D=Depl | etion, RM | I=Reduced Matrix, M | S=Masked | d Sand Gra | ains. | ² Location: PL=P | ore Lining, M=Matrix. | |
| ydric Soil | Indicators: | | | | | | Indicators | s for Problematic Hydric | Soils ³ : |
| _ Histoso | . , | | Dark Surface | () | | | | Muck (A10) (MLRA 147) | |
| | pipedon (A2) listic (A3) | | Polyvalue Be | | | | | t Prairie Redox (A16) | |
| _ | en Sulfide (A4) | | Loamy Gley | • | | 47, 140) | • | L RA 147, 148) nont Floodplain Soils (F19 |)) |
| | d Layers (A5) | | ✓ Depleted Ma | |) | | | LRA 136, 147) | ') |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | Very | Shallow Dark Surface (TF | 12) |
| | d Below Dark Surface | (A11) | Depleted Da | | | | Other | · (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depr | | | | | | |
| - | Mucky Mineral (S1) (L A 147, 148) | RR N, | Iron-Mangar MLRA 13 | | es (F12) (I | LRR N, | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | (MI RA 13 | 6 122) | ³ Indicate | ors of hydrophytic vegetati | ion and |
| | Redox (S5) | | Piedmont Flo | . , | • | | | d hydrology must be prese | |
| | d Matrix (S6) | | Red Parent I | • | • • | • | • | disturbed or problematic. | ont, |
| | Layer (if observed): | | | , | , (| | | · | |
| Type: cl | ay | | | | | | | | |
| | nches): <u>3</u> | | | | | | Hydric Soil Pre | sent? Yes 🖌 No | o |
| emarks: | | | | | | | 1 | | |



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: F | Pocahontas County | _ Sampling Date: <u>5/27/2016</u> | | | |
|-------------------------------------------------------------------|-------------------------|--------------------------------------------------|-----------------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa405_u | | | |
| Investigator(s): GB, KO | Section, Towr | _ Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): ridge saddle | | ave, convex, none): <u>none</u> | Slope (%): <u>5</u> | | | |
| | 37469126 | Long: <u>-80.06129433</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classifi | 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 Pl | EO wetland loca | ted in a slight denres | sion on a ridge saddle | | |
| opiano data point taken adjacent to ri | | icu in a siight acpres | sion on a huge saddie. | | |
| | | | | | |
| | | | | | |

| 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 Set | 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 Ver Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| 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 | tions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | tions), if available: |
| | tions), if available: |
| Remarks: | tions), if available: |

Sampling Point: wpoa405_u

| · · · · · | | • • · · · · · | | | | |
|----------------------------------------------------------|----------|------------------|---------|-------------------------------------------------------------------|--|--|
| Tree Stratum (Plot size: 30) | Absolute | Dominant I | | Dominance Test worksheet: | | |
| | | Species? | Status | Number of Dominant Species | | |
| _{1.} Fagus grandifolia | 30 | Yes | FACU | That Are OBL, FACW, or FAC:3 (A) | | |
| 2. Quercus rubra | 25 | Yes | FACU | | | |
| | 10 | No | FACU | Total Number of Dominant | | |
| 3. Acer saccharum | | INO | | Species Across All Strata: 8 (B) | | |
| 4. Picea rubens | 5 | No | FACU | | | |
| | | · | | Percent of Dominant Species | | |
| 5 | | . <u></u> | | That Are OBL, FACW, or FAC: 37.5 (A/B) | | |
| 6 | | | | 、 , | | |
| | | | | Prevalence Index worksheet: | | |
| 7 | | · | | Tatal 0/ Cause of Multiply buy | | |
| | 70 | = Total Cove | r | Total % Cover of: Multiply by: | | |
| 50% of total cover: 35 | | total cover: | 14 | OBL species 0 x 1 = 0 | | |
| 15 | 20 /8 01 | | | 0 0 | | |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species 15 $x = 0$ | | |
| _{1.} Fagus grandifolia | 25 | Yes | FACU | FAC species $x_3 =45$ | | |
| | 10 | Yes | FACU | FACU species 120 x 4 = 480 | | |
| 2. Acer pensylvanicum | | | | | | |
| _{3.} Hamamelis virginiana | 5 | No | FACU | UPL species x 5 = | | |
| 4. Picea rubens | 5 | No | FACU | Column Totals:135 (A)525 (B) | | |
| 4. Ficea Tuberis | | | 17.00 | | | |
| 5 | | | | 3.99 | | |
| | | · | | Prevalence Index = B/A =3.88 | | |
| 6 | | · | | Hydrophytic Vegetation Indicators: | | |
| 7 | | | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation | | |
| 8 | | · | | 2 - Dominance Test is >50% | | |
| 9. | | | | | | |
| | 45 | Tatal Cause | | 3 - Prevalence Index is ≤3.0 ¹ | | |
| 20 F | | = Total Cove | er 9 | 4 - Morphological Adaptations ¹ (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 | Vaa | ГАС | Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| | | Yes | FAC | | | |
| _{2.} Viola sagittata | 5 | Yes | FAC | | | |
| 3. Luzula multiflora | 5 | Yes | FACU | ¹ 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: | | |
| | | | | Deminions of Four vegetation Strata. | | |
| 5 | | · | | Tree Weady planta evaluding vince 2 in (7.6 cm) or | | |
| 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> | | Conting/Chrub Weedu starte evolution vises less | | |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less | | |
| | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 | | |
| 10 | | | | m) tall. | | |
| 11. | | | | | | |
| | 20 | | | Herb – All herbaceous (non-woody) plants, regardless | | |
| 10 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. | | |
| 50% of total cover: 10 | 20% of | total cover: | 4 | We address All was during a prestor them 2.00 ft in | | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in | | |
| ,,,, | | | | height. | | |
| 1 | | | | | | |
| 2 | | | | | | |
| 0 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| | | | | Hydrophytic | | |
| 5 | | · | | Vegetation | | |
| | 0 | = Total Cove | r | Present? Yes No V | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | | | |
| | | | | | | |
| Remarks: (Include photo numbers here or on a separate sl | heet.) | | | | | |
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| 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 | | | x Features | · · · · · · · · · · · · · · · · · · · | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | <u>Texture</u> | | Remarks | |
| 0-4 | 5YR 3/3 | 100 | | | | | CL | | | |
| 4-11 | 5YR 4/3 | 100 | | | | | CL | | | |
| 11-18 | 5YR 4/4 | 100 | | | | | CL | | | |
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| 1 | | | | | | | 2 | | | |
| 'Type: C=C Hydric Soil | oncentration, D=Depl | etion, RM= | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=F | | | ydric Soils ³ : |
| Histosol | | | Dark Surface | (87) | | | | | | |
| | pipedon (A2) | | Dark Surface Polyvalue Be | | ce (S8) (N | II RA 147. | | | .10) (MLRA 1 Redox (A16) | |
| | istic (A3) | | Thin Dark Su | | | | | ILRA 147 | . , | |
| | en Sulfide (A4) | | Loamy Gleye | . , | • | ,, | • | | odplain Soils | (F19) |
| Stratified | d Layers (A5) | | Depleted Ma | trix (F3) | | | (N | ILRA 136 | 6, 147) | |
| | uck (A10) (LRR N) | | Redox Dark | | , | | | | Dark Surface | . , |
| | d Below Dark Surface | e (A11) | Depleted Date | | · , | | Othe | er (Explai | n in Remarks |) |
| | ark Surface (A12) | | Redox Depre | | , | | | | | |
| - | /lucky Mineral (S1) (L A 147, 148) | KK N, | Iron-Mangan MLRA 13 | | es (F12) (I | LRR N, | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | MI RA 13 | 6, 122) | ³ Indica | tors of hy | drophytic veg | netation and |
| | Redox (S5) | | Piedmont Flo | | | | | | ogy must be | |
| | Matrix (S6) | | Red Parent M | • | . , | • | • | • | d or problem | |
| Restrictive | Layer (if observed): | | | | | | | | - | |
| Type: | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pr | esent? | Yes | No 🖌 |
| Remarks: | | | | | | | 1 | | | |
| | | | | | | | | | | |



Photo 1 Upland data point WPOA405_u facing north



Photo 2 Upland data point WPOA405_u facing east

| Project/Site: Atlantic Coast Pipeline | _ City/County: Pocaho | ontas County | Sampling Date: 5/27/2016 | | | | | |
|-------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------|----------------------------|--|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa406e_w | | | | | |
| Investigator(s): GB, KO | Section, Township, F | Range: No PLSS in this are | а | | | | | |
| Landform (hillslope, terrace, etc.): minor draw | | onvex, none): <u>concave</u> | Slope (%): <u>4</u> | | | | | |
| Subregion (LRR or MLRA): N Lat: 38.3739723 | 5 L | ong: <u>-80.06141953</u> | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | | NWI classifi | cation: None | | | | | |
| 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 Hydrology significant | tly disturbed? Ar | e "Normal Circumstances" | present? Yes 🗹 No | | | | | |
| Are Vegetation, Soil, or Hydrology naturally r | 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 🖌 N | lo lo lo | Is the Sampled Area within a Wetland? | Yes 🖌 | No | | | | |
|---------------------------------------------------------------------------------------|-------------------|-------------------|---------------------------------------|------------------|--------|--|--|--|--|
| Remarks: | | | | | | | | | |
| Saturated PEM seep wetland located in | a minor draw. Hyd | frology from seep | ppoa418 and origin of intermi | ttent stream spo | Jeuuz. | | | | |

| 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) |
| 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 Ima | agery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | | FAC-Neutral Test (D5) |
| Field Observations: | | |
| Surface Water Present? Yes | s No 🔽 Depth (inches): | |
| Water Table Present? Yes | s <u> No</u> Depth (inches): <u>4</u> | |
| Saturation Present? Yes (includes capillary fringe) | s No Depth (inches):0 | Wetland Hydrology Present? Yes <u>V</u> No |
| | auge, monitoring well, aerial photos, previous inspect | ions), if available: |
| | | |
| Remarks: | | |
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Sampling Point: wpoa406e_w

| | Abaaluta | Dominant I | ndiantar | Dominance Test worksheet: | | | |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|--|--|--|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | | | | |
| | 70 00101 | 000000 | Olalas | Number of Dominant Species | | | |
| 1 | | · | | That Are OBL, FACW, or FAC:6 (A) | | | |
| 2 | | | | Total Number of Dominant | | | |
| 3 | | | | Total Number of Dominant | | | |
| | | | | Species Across All Strata: o (B) | | | |
| 4 | | · | | Percent of Dominant Species | | | |
| 5 | | | | 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 species20 x 1 =20 | | | |
| 15 | 2070 01 | | | FACW species X 2 = 28 | | | |
| Sapling/Shrub Stratum (Plot size:) | | | | 25 75 | | | |
| 1. Crataegus viridis | 4 | Yes | FACW | FAC species x 3 = | | | |
| 2 Picea rubens | 3 | Yes | FACU | FACU species $5 \times 4 = 20$ | | | |
| 3. Fagus grandifolia | 2 | Yes | FACU | UPL species $0 \times 5 = 0$ | | | |
| 3. <u>Fagus granuliolla</u> | 2 | Tes | FACU | 64 143 | | | |
| 4 | | | | Column Totals: (A) (B) | | | |
| | | | | | | | |
| 5 | | · | | Prevalence Index = $B/A = 2.23$ | | | |
| 6 | | | | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation | | | |
| 8 | | | | ✓ 2 - Dominance Test is >50% | | | |
| 9. | | | | | | | |
| | 9 | Tatal Cause | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ | | | |
| 45 | | = Total Cove | r 1.8 | 4 - Morphological Adaptations ¹ (Provide supporting | | | |
| 50% of total cover: 4.5 | 20% of | total cover: | 1.0 | data in Remarks or on a separate sheet) | | | |
| Herb Stratum (Plot size: 5) | | | | | | | |
| 1. Glyceria striata | 10 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| | | · | | | | | |
| 2. Dryopteris carthusiana | 10 | Yes | FAC | | | | |
| 3. Chelone glabra | 10 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must | | | |
| 4. Viola cucullata | 10 | Yes | FACW | be present, unless disturbed or problematic. | | | |
| | | 165 | TACW | Definitions of Four Vegetation Strata: | | | |
| _{5.} Tiarella cordifolia | 10 | Yes | FAC | | | | |
| 6. Solidago rugosa | 5 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or | | | |
| | | · | | more in diameter at breast height (DBH), regardless of | | | |
| 7 | | | | height. | | | |
| 8 | | | | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less | | | |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 | | | |
| 10 | | | | m) tall. | | | |
| 11 | | | | | | | |
| 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: 27.5 | 20% of | total cover: | 11 | | | | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in | | | |
| | | | | height. | | | |
| 1 | | · | | | | | |
| 2 | | | | | | | |
| | | · | | | | | |
| 3 | | · | | | | | |
| 4 | | | | Ludronbutio | | | |
| 5 | | | | Hydrophytic Vegetation | | | |
| 0 | - | · | | Present? Yes V No | | | |
| | | = Total Cove | • | | | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | | | | |
| Remarks: (Include photo numbers here or on a separate s | hoot) | | | | | | |
| Remarks. (include photo numbers here of on a separate s | neel.) | | | | | | |
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| Profile Des | cription: (Describe to | o the dep | oth needed to docur | nent the i | indicator | or confirm | the absence of i | ndicators.) | | |
|--------------------------|--------------------------------|-----------|-----------------------------|-------------|--------------|------------------|-----------------------------|-----------------------------------------|---------------|-----------|
| Depth | Matrix | | | x Feature | 1 | 0 | | | | |
| (inches) | Color (moist) | % | Color (moist) | <u>%</u> | <u>Type'</u> | Loc ² | <u>Texture</u> | Rem | arks | |
| 0-6 | 5YR 4/2 | 95 | 5YR 4/6 | 5 | С | M | CL | | | |
| 6-18 | 5YR 4/2 | 95 | 5YR 4/6 | 5 | С | М | С | | | |
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| 1 | | | | | | | 2 | | | |
| Type: C=C Hydric Soil | concentration, D=Deple | etion, RM | =Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | ² Location: PL=P | ore Lining, M=M s for Problemat | | - 11 - 3. |
| - | | | | (07) | | | | | • | |
| Histoso | () | | Dark Surface | . , | | | | Muck (A10) (ML | | |
| | pipedon (A2) | | Polyvalue Be | | . , . | | · | Prairie Redox (| A16) | |
| | listic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | • | | 47, 148) | • | _RA 147, 148) nont Floodplain | Soile (E10) | |
| | d Layers (A5) | | Loany Gleye V Depleted Ma | | (FZ) | | | _RA 136, 147) | 30115 (F 19) | |
| | uck (A10) (LRR N) | | Redox Dark | , , | -6) | | • | Shallow Dark Su | urface (TE12) | ` |
| | d Below Dark Surface | (A11) | Depleted Dai | • | , | | | (Explain in Ren | , , |) |
| - | ark Surface (A12) | (,) | Redox Depre | | . , | | | (_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | iunito) | |
| | Mucky Mineral (S1) (LI | RR N. | Iron-Mangan | | , | LRR N. | | | | |
| | A 147, 148) | | MLRA 13 | | · / · | | | | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | | (MLRA 13 | 6, 122) | ³ Indicato | ors of hydrophyti | c vegetation | and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain S | Soils (F19) | (MLRA 14 | 8) wetland | d hydrology mus | t be present | , |
| Stripped | d Matrix (S6) | | Red Parent N | Aaterial (F | 21) (MLR | A 127, 147 | 7) unless | disturbed or pro | blematic. | |
| | Layer (if observed): | | | | | | | | | |
| Type: cla | ау | | | | | | | | | |
| Depth (in | | | | | | | Hydric Soil Pre | sent? Yes | No | |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Photo 1 Wetland data point WPOA406e_w facing north



Photo 2 Wetland data point WPOA406e_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahor | ntas County | Sampling Date: 5/27/2016 |
|-----------------------------------------------------------------|------------------------------|----------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa406_u |
| Investigator(s): GB, KO | Section, Township, R | ange: <u>No PLSS</u> in this are | |
| Landform (hillslope, terrace, etc.): slope | Local relief (concave, co | | Slope (%): <u>8</u> |
| Subregion (LRR or MLRA): N Lat: 38. | .37404935 Lo | ong: <u>-80.0613321</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes No | (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are | e "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If i | 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 on slope above | PEM wetland le | ocated | in a minor dra | aw. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Wetland Hydrology Indicators | s: | | | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------|------------|------------------------------------------------|
| Primary Indicators (minimum of | f one is required; cheo | ck 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 | al 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? | | _ Depth (inches): _ Depth (inches): | Wetland H | lydrology Present? Yes No/ |
| Saturation Present? (includes capillary fringe) | Yes No | | | |
| Saturation Present? (includes capillary fringe) | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea No hydrology indicators present. | Yes <u>No</u> No | _ Depth (inches): | | |

Sampling Point: wpoa406_u

| | Absolute | Dominant In | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|---------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | Status | |
| 1. Picea rubens | 45 | Yes | FACU | Number of Dominant Species |
| | 10 | No | FAC | That Are OBL, FACW, or FAC: (A) |
| 2. Betula alleghaniensis | | | | Total Number of Dominant |
| 3. Carya glabra | 5 | No | FACU | Species Across All Strata: 5 (B) |
| _{4.} Quercus rubra | 5 | No | FACU | |
| 5. Fagus grandifolia | 5 | No | FACU | Percent of Dominant Species That Are OBL_EACW_or_EAC: 0 (A/B) |
| | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | | | Total % Cover of: Multiply by: |
| | 70 | = Total Cover | | |
| 50% of total cover: 35 | 20% of | total cover: | 14 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =0 |
| 1. Acer saccharum | 8 | Yes | FACU | FAC species 20 x 3 = 60 |
| 2. Fagus grandifolia | 5 | Yes | FACU | FACU species 104 x 4 = 416 |
| | | | | |
| 3. Quercus alba | 4 | Yes | FACU | UPL species $0 \times 5 = 0$ |
| 4. Prunus serotina | 2 | No | FACU | Column Totals: (A) (B) |
| 5 | | | | 0.00 |
| 9 | | | | Prevalence Index = B/A =3.83 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9. | | | | |
| | 19 | = Total Cover | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover:9.5 | | total cover: | 3.8 | 4 - Morphological Adaptations ¹ (Provide supporting |
| F | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| | 00 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Dennstaedtia punctilobula | 20 | Yes | FACU | |
| _{2.} Fragaria vesca | 5 | No | FACU | |
| 3. Dryopteris carthusiana | 5 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Solidago rugosa | 5 | No | FAC | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | <u> </u> | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8. | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 35 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 17.5 | 20% of | total cover: | 7 | |
| 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 | - | | | Vegetation Present? Yes <u>No </u> V |
| | | = Total Cover | • | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | ription: (Describe to | the depth | needed to docur | nent the inc | dicator o | or confirm | the absenc | e of indicato | ors.) | |
|------------------|-------------------------------|-----------|------------------|--------------------|-------------------|------------------------|------------------------|------------------|---------------|---------------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 5YR 3/3 | 100 | | | | | CL | | | |
| 4-18 | 5YR 4/4 | 100 | | | | | CL | | | |
| | | | | | | | | _ | | |
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| 1 Type: C-C | oncentration, D=Deple | tion PM_P | Poducod Matrix M | -Mackad S | Sand Gra | line | ² Location: | PL=Pore Lini | na M-Matrix | |
| Hydric Soil | | | | | | | | | 0 | lydric Soils ³ : |
| Histosol | | | Dark Surface | (97) | | | | 2 cm Muck (/ | | • |
| | bipedon (A2) | | Polyvalue Be | () | (S8) (M | I RA 147. ⁴ | | Coast Prairie | | • |
| | stic (A3) | | Thin Dark Su | | · · · | | | (MLRA 14 | | / |
| | n Sulfide (A4) | | Loamy Gleye | | | , | | Piedmont Flo | • | s (F19) |
| | Layers (A5) | | Depleted Ma | , | , | | | (MLRA 13 | • | ` , |
| 2 cm Mu | ick (A10) (LRR N) | | Redox Dark | Surface (F6) |) | | | Very Shallow | Dark Surfac | e (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface (I | F7) | | | Other (Expla | in in Remark | s) |
| Thick Da | ark Surface (A12) | | Redox Depre | ssions (F8) | | | | | | |
| Sandy N | lucky Mineral (S1) (LF | RR N, | Iron-Mangan | ese Masses | s (F12) (L | .RR N, | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | |
| Sandy G | eleyed Matrix (S4) | | Umbric Surfa | ce (F13) (M | LRA 13 | 6, 122) | ³ In | dicators of h | ydrophytic ve | getation and |
| | edox (S5) | | Piedmont Flo | • | , , | • | • | etland hydro | ••• | • |
| | Matrix (S6) | | Red Parent N | laterial (F21 | 1) (MLR/ | A 127, 147) |) u | nless disturb | ed or probler | natic. |
| | _ayer (if observed): | | | | | | | | | |
| Type: cla | | | | | | | | | | |
| Depth (in | ches): <u>13</u> | | | | | | Hydric So | il Present? | Yes | No |
| Remarks: | | | | | | | 1 | | | |



Photo 1 Upland data point WPOA406_u facing east



Photo 2 Upland data point WPOA406_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | _ Sampling Date: 8/26/2016 |
|---------------------------------------------------------|------------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa423e_w |
| Investigator(s): GB, AS | Section, Towns | hip, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): slope | | ve, convex, none): <u>concave</u> | Slope (%): <u>8</u> |
| Subregion (LRR or MLRA): N | at: <u>38.37332868</u> | Long: <u>-80.06116315</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: PEM |
| Are climatic / hydrologic conditions on the site typica | I for this 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 FINDINCS Attach aita | man chawing compling n | aint lagationa transport | important factures ato |

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 | マ マ マ | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|-------------------|-------------|------------------------|---------------------------------------|-------|----|
| Remarks: | | | | | | |
| Saturated PEM wetland in a slope conca | vity and | swale; | historic pasture; silt | y clay perches water. | | |
| | | | | | | |
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| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living F Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | 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 <u>V</u> Depth (inches): | Wetland Hydrology Present? Yes <u>V</u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Remarks: | |

Sampling Point: wpoa423e_w

| | Abaaluta | • Deminent I | | Deminence Test worksheet |
|----------------------------------------------------------|------------|------------------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % | Dominant I Species? | | Dominance Test worksheet: |
| <u>(100 0tratam</u>) | 0 | <u>opecies:</u> | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:7 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: (B) |
| 4 | | <u> </u> | | Demonstrat Demoiser |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7. | | | | Prevalence index worksneet: |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| | | | 0 | OBL species X 1 = 30 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 69 100 |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $x = $ |
| 1. Acer rubrum | 3 | Yes | FAC | FAC species $3 \times 3 = 9$ |
| 2 Crataegus viridis | 3 | Yes | FACW | FACU species $0 	 x 4 = 0$ |
| 2. Crataegus vinuis | 3 | 165 | FACW | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals:(A)(A)(B) |
| 4 | | | | () |
| 5 | | | | Prevalence Index = B/A =1.73 |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 0 | | | | ∠ 2 - Dominance Test is >50% |
| 9 | 6 | | | <u> </u> 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: <u>3</u> | 20% of | total cover: | 1.2 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Solidago gigantea | 20 | Vaa | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | Yes | FACW | |
| _{2.} Doellingeria umbellata | 20 | Yes | FACW | |
| 3. Carex lupulina | 15 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4. Scirpus atrovirens | 15 | Yes | OBL | Definitions of Four Vegetation Strata: |
| 5. Juncus effusus | 15 | Yes | FACW | |
| 6. Osmundastrum cinnamomeum | 10 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Osmundastrum cinnamomeum | 10 | INU | TAGW | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | 5 |
| 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 | 05 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 47.5 | 20% of | total cover: | 19 | |
| Woody Vine Stratum (Plot size: 30) | | _ | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. none | 0 | | | |
| 2. | | | | |
| | | | | |
| 3 | | | | |
| 4 | | | | Undeenbudie |
| 5. | | | | Hydrophytic Vegetation |
| | | | | Present? Yes V No |
| | | = Total Cove | <u> </u> | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate sl | hoot) | | | |
| | ieet.) | | | |
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| Profile Desc | cription: (Describe to | o the de | pth needed to docun | nent the | indicator | or confirm | the absence of | indicators.) | |
|------------------------------------------------------------------------------|------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Depth | Matrix | | Redo | x Feature | es | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-4 | 5YR 4/2 | 100 | | | | | L | | |
| 4-10 | 5YR 4/2 | 94 | 5YR 4/6 | 6 | С | PL/M | SCL | | |
| 10-18 | 5YR 4/2 | 92 | 5YR 4/2 | 8 | С | PL/M | SIC | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| <u></u> | | | | | | | ² | | |
| Hydric Soil | | etion, Riv | 1=Reduced Matrix, MS | S=IVIASKe | d Sand Gra | ains. | | Pore Lining, M=Matrix | |
| Histosol Histic Ep Histic Ep Histic Ep Hydroge Stratified Completed Thick Da | | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Mat Redox Dark S Depleted Dar Redox Depre Iron-Mangane | low Surfa rface (S9 d Matrix rix (F3) Surface (I k Surface ssions (F | 9) (MLRA 1 (F2) F6) e (F7) ⁵ 8) | 47, 148) | 2 cm 148) Coas (N Pied (N Very | n Muck (A10) (MLRA st Prairie Redox (A16) ILRA 147, 148) mont Floodplain Soils ILRA 136, 147) s Shallow Dark Surface er (Explain in Remarks | (F19) e (TF12) |
| | A 147, 148) | ΝΝ Ν , | MLRA 13 | | ses (F12) (| LNN N, | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) | (MLRA 13 | 6, 122) | ³ Indicat | tors of hydrophytic ve | getation and |
| Sandy R | Redox (S5) | | Piedmont Flo | odplain S | Soils (F19) | (MLRA 14 | 8) wetlar | nd hydrology must be | present, |
| Stripped | l Matrix (S6) | | Red Parent M | laterial (F | -21) (MLR | A 127, 147 | ') unless | s disturbed or problem | natic. |
| Restrictive I | Layer (if observed): | | | | | | | | |
| Type: silt | ty clay | | | | | | | | |
| Depth (inc | | | | | | | Hydric Soil Pre | esent? Yes 🖌 | No |
| Remarks: | | | | | | | | | |



Wetland data point wpoa423e_w facing east



Wetland data point wpoa423e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | _ Sampling Date: 8/26/2016 |
|------------------------------------------------------------------------|------------------|----------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | |
| Investigator(s): GB, AS | Section, Townsl | nip, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): slope | | re, convex, none): <u>none</u> | |
| Subregion (LRR or MLRA): N Lat: 38.37333 | 248 | Long: <u>-80.06125609</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes | No (If no, explain in I | 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 | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | wing sampling p | oint 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 in forested are | a adjacent to a | saturated PEM wetla | and in a slope concavity and s | wale. | |

| 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 Roo | ts (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (| C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u></u> | |
| Water Table Present? Yes No _ | |
| Saturation Present? Yes No <u>V</u> Depth (inches): We (includes capillary fringe) | etland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections | s), if available: |
| | |
| Remarks: | |
| no hydrology indicators present | |
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Sampling Point: wpoa423_u

| | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: | |
|---------------------------------------------------------|----------|---------------|----------|---------------------------------------------------------------------|----|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Number of Dominant Species | |
| 1. Acer saccharum | 35 | Yes | FACU | That Are OBL, FACW, or FAC: 1 (A) | |
| 2. Tsuga canadensis | 35 | Yes | FACU | Total Number of Deminent | |
| _{3.} Fagus grandifolia | 10 | No | FACU | Total Number of Dominant Species Across All Strata: 4 (B) | |
| 4 | | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:(A/E | D) |
| 6 | | | | | 5) |
| | | · | | Prevalence Index worksheet: | |
| 7 | 80 | = Total Cove | | Total % Cover of: Multiply by: | |
| 50% of total cover: 40 | | total cover: | 16 | OBL species 0 x 1 = 0 | |
| Sapling/Shrub Stratum (Plot size: 15) | 2070.01 | | | FACW species 0 x 2 = 0 | |
| 1 Fagus grandifolia | 20 | Yes | FACU | FAC species $5 \times 3 = 15$ | |
| 2. Tsuga canadensis | 5 | No | FACU | FACU species $108 \times 4 = 432$ | |
| 3. Crataegus crus-galli | 3 | No | FACU | $\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $ | |
| 3. <u>Crataeyus crus-ya</u> | | 110 | TACO | 113 ///7 | |
| 4 | | · | | Column Totals: (A) (B | •) |
| 5 | | | | Prevalence Index = B/A =3.95 | |
| 6 | | | | Hydrophytic Vegetation Indicators: | |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | | | 2 - Dominance Test is >50% | |
| 9 | | | | | |
| | 28 | = Total Cover | r | $_$ 3 - Prevalence Index is ≤3.0 ¹ | |
| 50% of total cover: <u>14</u> | | total cover: | | 4 - Morphological Adaptations ¹ (Provide supportin | ng |
| Herb Stratum (Plot size: <u>5</u>) | | | | data in Remarks or on a separate sheet) | |
| 1. Viola canadensis | 5 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| | | · | | | |
| 2 | | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| 3 | | | | be present, unless disturbed or problematic. | |
| 4 | | | | Definitions of Four Vegetation Strata: | |
| 5 | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of | 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, regardles: | |
| | 5 | = Total Cover | r | of size, and woody plants less than 3.28 ft tall. | 3 |
| 50% of total cover: 2.5 | | total cover: | | | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in height. | |
| 1. none | 0 | | | | |
| | - | | | | |
| | | | | | |
| 3 | | · | | | |
| 4 | | · | | Hydrophytic | |
| 5 | | · | | Vegetation Present? Yes No | |
| | | = Total Cover | <u>^</u> | Present? Yes No | |
| 50% of total cover:0 | 20% of | total cover: | 0 | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | | |
| | | | | | |

| Profile Desc | ription: (Describe t | o the depth | n needed to docum | nent the in | dicator o | or confirm | the absence | of indicato | rs.) | |
|-------------------------|-----------------------|-------------|--------------------|-------------|-------------------|-----------------------|---------------------------|--------------|------------------|----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 5YR 3/3 | 100 | | | | | SCL | | | |
| 4-11 | 5YR 3/4 | 100 | | | | | CL | | | |
| 11-18 | 5YR 4/6 | 100 | | | | | CL | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| ¹ Type: C=Co | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ins. | ² Location: PL | | | |
| Hydric Soil | Indicators: | | | | | | Indica | tors for Pr | oblematic H | ydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A | 10) (MLRA | 147) |
| Histic Ep | pipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (M | LRA 147, ⁻ | 148) Co | oast Prairie | Redox (A16 |) |
| Black Hi | stic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | | (MLRA 14 | 7, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | 2) | | Pie | edmont Flo | odplain Soils | s (F19) |
| Stratified | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 13 | 6, 147) | |
| 2 cm Mu | ick (A10) (LRR N) | | Redox Dark | Surface (F6 | 6) | | Ve | ery Shallow | Dark Surfac | e (TF12) |
| Depleted | d Below Dark Surface | (A11) | Depleted Dar | k Surface | (F7) | | Ot | her (Explai | n in Remark | s) |
| Thick Da | ark Surface (A12) | | Redox Depre | ssions (F8 |) | | | | | |
| Sandy M | lucky Mineral (S1) (L | RR N, | Iron-Mangan | ese Masse | s (F12) (L | .RR N, | | | | |
| - | A 147, 148) | | MLRA 13 | | . , . | | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | ILRA 13 | 6, 122) | ³ India | cators of hy | drophytic ve | getation and |
| - | Redox (S5) | | Piedmont Flo | | | | | - | ogy must be | - |
| | Matrix (S6) | | Red Parent M | • | () | • | , | • | ed or problem | • |
| Restrictive I | Layer (if observed): | | | | | | | | | |
| Type: <u>no</u> | ne | | | | | | | | | |
| Depth (ind | | | | | | | Hydric Soil | Present? | Yes | No |
| Remarks: | | | | | | | | | | |



Upland data point wpoa423_u facing south



Upland data point wpoa423_u facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas | County | _ Sampling Date: 5/26/2016 | | | | |
|--------------------------------------------------------|-----------------------------------|--------------------------------------------------|-----------------------------|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa404e_w | | | | |
| Investigator(s): GB, KO | Section, Township, Rang | _ Section, Township, Range: No PLSS in this area | | | | | |
| Landform (hillslope, terrace, etc.): depression | Local relief (concave, conve | | Slope (%): <u>2</u> | | | | |
| Subregion (LRR or MLRA): N | Lat: <u>38.37393523</u> Long: | -80.06240745 | Datum: WGS 1984 | | | | |
| Soil Map Unit Name: | | NWI classif | fication: None | | | | |
| Are climatic / hydrologic conditions on the site typic | cal for this time of year? Yes No | (If no, explain in | Remarks.) | | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are "No | ormal Circumstances" | ' present? Yes 🖌 No | | | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If need | ded, explain any answ | vers in Remarks.) | | | | |
| SUMMARY OF FINDINGS – Attach sit | te map showing sampling point loc | ations, transect | s, important features, etc. | | | | |
| | | | | | | | |

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u> | 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) 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) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <u></u> No <u>Depth</u> (inches): <u>3</u> | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes <u></u> No <u>Depth</u> (inches): 0 | Wetland Hydrology Present? Yes No |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Remarks: | |
| Remarks. | |
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Sampling Point: wpoa404e_w

| | Absolute | Dominant I | dicator | Dominance Test worksheet: |
|-------------------------------------------------------|----------|----------------|---------|--------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| | | | | 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 | | | | |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | · | | |
| | | = Total Cove | | |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $x^2 = 00^{-10}$ |
| | | | | FAC species $0 	 x 3 = 0$ |
| 1 | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | |
| 3 | | <u></u> | | $\begin{array}{c} \text{UPL species} & 0 & x 5 = 0 \\ \text{Out we Table } & 65 & (A) & 110 \\ \end{array}$ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =1.69 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 9 | | | | $\frac{\nu}{1}$ 2 - Dominance Test is >50% |
| 9 | 0 | | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| 0 | | = Total Cove | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | f total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| _{1.} Leersia virginica | 30 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Carex prasina | 15 | Yes | OBL | |
| 3. Carex conjuncta | 10 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| | | · | | be present, unless disturbed or problematic. |
| 4. Typha latifolia | 5 | No | OBL | Definitions of Four Vegetation Strata: |
| _{5.} Juncus effusus | 5 | No | 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. |
| | | - <u> </u> | | |
| 11 | 65 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: <u>32</u> . | 5 20% of | f total cover: | 13 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | loight |
| | | | | |
| 2 | | · | | |
| 3 | | · | | |
| 4 | | <u></u> | | Hydrophytic |
| 5 | | | | Vegetation |
| | _ | = Total Cove | | Present? Yes V No |
| 50% of total cover: 0 | | f total cover: | • | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate | sheet.) | | | |
| | | | | |
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| Depth | Matrix | | | x Features | | | |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | | pe ¹ Loc ² | Texture | Remarks |
| 0-5 | 7.5YR 2.5/2 | 93 | 7.5YR 5/6 | 7 | C PL/M | CL | |
| 5-18 | 7.5YR 4/2 | 95 | 7.5YR 5/8 | 5 | C PL/M | С | |
| | | | | | | · | |
| | | | | | | | |
| | | | | | | · | |
| Type: C=0 | Concentration, D=Deple | etion, RM= | =Reduced Matrix, MS | S=Masked San | d Grains. | ² Location: PL=Po | re Lining, M=Matrix. |
| | I Indicators: | | | | | | for Problematic Hydric Soils ³ : |
| Black H | ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) | | Thin Dark Sur Loamy Gleye | low Surface (S rface (S9) (ML d Matrix (F2) rix (F3) | 68) (MLRA 147 RA 147, 148) | 7, 148) Coast (ML Piedmo (ML | Nuck (A10) (MLRA 147) Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F19) RA 136, 147) |
| 2 cm N Deplete Thick E | luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) | . , | Depleted Dar Redox Depres | | | | hallow Dark Surface (TF12) (Explain in Remarks) |
| 2 cm N Deplete Thick I Sandy | luck (A10) (LRR N) ed Below Dark Surface | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 | k Surface (F7) ssions (F8) ese Masses (F 6) | 12) (LRR N, | | . , |
| 2 cm N Deplete Thick I Sandy MLR Sandy | Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L RA 147, 148) Gleyed Matrix (S4) | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 Umbric Surfac | k Surface (F7) ssions (F8) ese Masses (F 6) ce (F13) (MLR | (12) (LRR N, A 136, 122) | Other (| (Explain in Remarks) |
| 2 cm N Deplete Thick I Sandy MLR Sandy Sandy | Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L RA 147, 148) Gleyed Matrix (S4) Redox (S5) | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo | k Surface (F7) ssions (F8) ese Masses (F 6) ce (F13) (MLR odplain Soils (| 12) (LRR N, (A 136, 122) F19) (MLRA 1 | Other (³ Indicator 48) wetland | (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, |
| 2 cm M Deplete Thick I Sandy MLR Sandy Sandy Strippe | Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L RA 147, 148) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo | k Surface (F7) ssions (F8) ese Masses (F 6) ce (F13) (MLR odplain Soils (| (12) (LRR N, A 136, 122) | Other (³ Indicator 48) wetland | (Explain in Remarks) |
| 2 cm M Depleta Thick I Sandy MLR Sandy Sandy Strippe Restrictive | Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L & A 147, 148) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) & Layer (if observed): | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo | k Surface (F7) ssions (F8) ese Masses (F 6) ce (F13) (MLR odplain Soils (| 12) (LRR N, (A 136, 122) F19) (MLRA 1 | Other (³ Indicator 48) wetland | (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, |
| 2 cm M Deplete Thick I Sandy MLR Sandy Sandy Strippe Restrictive Type: <u>C</u> | Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L & A 147, 148) Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) & Layer (if observed): | . , | Depleted Dari Redox Depres Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo | k Surface (F7) ssions (F8) ese Masses (F 6) ce (F13) (MLR odplain Soils (| 12) (LRR N, (A 136, 122) F19) (MLRA 1 | Other (³ Indicator 48) wetland | (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, disturbed or problematic. |



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 Cou | unty Sa | Sampling Date: <u>5/26/2016</u> | |
|---------------------------------------------------------------------------|----------------------------------|------------------------|---------------------------------|--|
| Applicant/Owner: Dominion | | | Sampling Point: wpoa404_u | |
| Investigator(s): GB, KO | _ Section, Township, Range: N | o PLSS in this area | | |
| Landform (hillslope, terrace, etc.): ridge saddle | ocal relief (concave, convex, no | one): <u>none</u> | Slope (%): <u>4</u> | |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.37405027</u> | Zero Long: -80 | .06243017 | Datum: WGS 1984 | |
| Soil Map Unit Name: | | NWI classification | on: None | |
| Are climatic / hydrologic conditions on the site typical for this time of | year? Yes 🖌 No | (If no, explain in Rem | arks.) | |
| Are Vegetation, Soil, or Hydrology significant | tly disturbed? Are "Norma | al Circumstances" pres | sent? Yes 🖌 No | |
| Are Vegetation, Soil, or Hydrology naturally p | problematic? (If needed, | explain any answers i | n Remarks.) | |
| SUMMARY OF FINDINGS – Attach site map showing | ng sampling point locati | ons, transects, iı | nportant 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 sad | dle adjacent to | a saturated to semi-r | bermanently flooded PEM w | etland within a | network of depressions and ruts. |

| 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 Livin | g Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled | Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| 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>Y</u> Depth (inches): (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe | ections), if available: |
| | |
| Remarks: | |
| no hydrology indicators present | |
| | |
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Sampling Point: wpoa404_u

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|---------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | | Status | |
| 1. Quercus rubra | 25 | Yes | FACU | Number of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: (A) |
| 2. Acer saccharum | 20 | Yes | FACU | Total Newborn of Demission |
| _{3.} Fagus grandifolia | 10 | No | FACU | Total Number of Dominant |
| 4. Tsuga canadensis | 5 | No | FACU | Species Across All Strata: (B) |
| 4. Tsuga canadensis | | | 17100 | Percent of Dominant Species |
| 5 | | | | 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 |
| | 10 | Vaa | | 6 19 |
| 1. Acer pensylvanicum | 10 | Yes | FACU | 106 121 |
| _{2.} Picea rubens | 7 | Yes | FACU | FACU species x 4 = |
| _{3.} Fagus grandifolia | 5 | No | FACU | UPL species $0 	 x 5 = 0$ |
| | 5 | No | FACU | 112 ///2 |
| 4. Acer saccharum | | 110 | | Column Totals: (A) (B) |
| 5. Tsuga canadensis | 3 | No | FACU | Prevalence Index $= B/A = 3.94$ |
| 6. | | · · | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | - | · · | | 2 - Dominance Test is >50% |
| 9 | 20 | · · | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (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 ¹ (Explain) |
| | | · · · · · · | | |
| 2. Dennstaedtia punctilobula | 8 | Yes | FACU | 1 |
| _{3.} Anemone quinquefolia | 8 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Maianthemum canadense | 6 | Yes | FAC | be present, unless disturbed or problematic. |
| 4. Malanthemain eanadense | 0 | 103 | TAO | 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 | | | | Conting/Chrub Woody planta avaluding vince loss |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | · · | | m) tall. |
| 10 | | · · | | |
| 11 | | | | 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 – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | . <u></u> . | | |
| 2 | | | | |
| | | · · | | |
| 3 | | · · | | |
| 4 | | | | Hydrophytic |
| 5. | | | | Vegetation |
| | 0 | | | Present? Yes No V |
| 0 | | = Total Cover | ~ | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | ription: (Describe t | o the dept | th needed to docur | nent the ir | ndicator | or confirm | the absenc | e of indicato | ors.) | | |
|------------------------|-------------------------------------------|---------------|--------------------------|-------------|--------------------|------------------|------------------------|---------------|-------------------|---------------------------------|---|
| Depth | Matrix | | Redo | x Features | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | 6 | |
| 0-2 | 7.5YR 2.5/2 | 100 | | | | | L | | | | |
| 2-10 | 7.5YR 3/3 | 100 | | | | | CL | | | | |
| 10-18 | 5YR 4/4 | 100 | | | | | CL | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion. RM= | Reduced Matrix, MS | S=Masked | Sand Gra | ains | ² Location: | PL=Pore Lini | ng. M=Matrix | K. | |
| Hydric Soil | | | i i cadood i i aling i i | - maonea | | | | | 0. | Iydric Soils ³ : | : |
| Histosol | (A1) | | Dark Surface | | | | | 2 cm Muck (A | A10) (MLRA | 147) | |
| | pipedon (A2) | | Polyvalue Be | | | | 148) | Coast Prairie | • | 5) | |
| | stic (A3) | | Thin Dark Su | . , | • | 47, 148) | | (MLRA 14 | • • | - (510) | |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | | Piedmont Flo | • | s (F19) | |
| | d Layers (A5) | | Depleted Ma | . , | 0) | | | (MLRA 13 | | (7540) | |
| | ick (A10) (LRR N) | (111) | Redox Dark | | , | | | Very Shallow | | | |
| · | d Below Dark Surface ark Surface (A12) | (ATT) | Depleted Dat | | . , | | | Other (Expla | in in Remark | .5) | |
| | lucky Mineral (S1) (L | | Redox Depre | | , | | | | | | |
| | A 147, 148) | ΝΝ Ν , | MLRA 13 | | 5 (F12) (1 | -nn n, | | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | | 6 122) | ³ In | dicators of b | udrophytic ve | egetation and | |
| | Redox (S5) | | Piedmont Flo | | | | | vetland hydro | | - | |
| | Matrix (S6) | | Red Parent N | | | | | nless disturb | •. | • | |
| | Layer (if observed): | | | | | ~ 121, 141) | , u | | | naut. | |
| Type: no | | | | | | | | | | | |
| Depth (in | | | | | | | Hydric So | il Present? | Yes | No 🖌 | |
| Remarks: | | | | | | | | | | | |
| INCINAINS. | | | | | | | | | | | |



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: F | Pocahontas County | _ Sampling Date: 5/26/2016 |
|-------------------------------------------------------------------|------------------------|-----------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa403e_w |
| Investigator(s): GB, KO | Section, Towr | ship, Range: <u>No PLSS</u> in this are | |
| Landform (hillslope, terrace, etc.): skid trail | | ave, convex, none): <u>concave</u> | Slope (%): <u>4</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.3</u> | 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 I | 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 answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map | showing 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 _ | v | 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) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🖌 Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| • | Wetland Hydrology Present? Yes <u>/</u> No |
| Saturation Present? Yes <u><</u> No <u>Depth</u> (inches): <u>0</u> | |
| (includes capillary fringe) | |
| | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |

Sampling Point: wpoa403e_w

| | Absolute | Dominant I | ndiantar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| | | | | Number of Dominant Species That Are OBL EACW or EAC: 4 (A) |
| | | | | That Are OBL, FACW, or FAC: (A) |
| 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 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | Tatal Ora | | Total % Cover of: Multiply by: |
| | | = Total Cove | r O | OBL species 15 x 1 = 15 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 70 110 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x^2 = \frac{1+6}{2}$ |
| 1 | | | | FAC species $0 	 x 3 = 0$ |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | |
| 3 | | | | 85 155 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =1.82 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | · | | 2 - Dominance Test is >50% |
| 9 | | · | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (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. Packera aurea | 20 | Voo | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | Yes | | |
| 2. Impatiens capensis | 15 | Yes | FACW | |
| _{3.} Ranunculus abortivus | 15 | Yes | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Carex prasina | 15 | Yes | OBL | be present, unless disturbed or problematic. |
| | 10 | · | | Definitions of Four Vegetation Strata: |
| 5. Viola cucullata | 10 | No | FACW | |
| _{6.} Solidago gigantea | 10 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | | | noight. |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | · | | |
| 11 | 95 | · | | 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 | total cover: | 17 | Mandussing Allowed by incomparents there 2,00 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| / | | | | |
| 1 | | | | |
| 2 | | · | | |
| 3. | | | | |
| 1 | | | | |
| 4 | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
| | | | | |
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| Profile Desc | cription: (Describe to | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence | e of indicators.) |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth | Matrix | | | x Feature | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-4 | 7.5YR 3/2 | 95 | 7.5YR 5/6 | 5 | С | PL/M | CL | |
| 4-10 | 7.5YR 4/2 | 95 | 7.5YR 5/8 | 5 | С | PL/M | С | rock at 10" |
| | | | | | | | | |
| | oncentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Maskee | d Sand Gra | | | PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indic | ators for Problematic Hydric Soils ³ : |
| Black H Hydroge Stratifie 2 cm Mu Deplete Thick Di Sandy M MLRA | pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L I A 147, 148) | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma ✓ Redox Dark Suppleted Data Redox Depresuppleted Data | low Surfa rface (S9 ed Matrix (trix (F3) Surface (F k Surface (F essions (F esse Mass 6) |) (MLRA 1 (F2) (F6) e (F7) 8) es (F12) (| 47, 148) LRR N, | 148) (| 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) /ery Shallow Dark Surface (TF12) Dther (Explain in Remarks) |
| Sandy C | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) | (MLRA 13 | 6, 122) | ³ Inc | dicators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | • | . , | • | • | etland hydrology must be present, |
| | d Matrix (S6) | | Red Parent N | Aaterial (F | 21) (MLR | A 127, 147 | ') ur | less disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: ro | СК | | | | | | | |
| Depth (in | ches): <u>10</u> | | <u>.</u> | | | | Hydric Soi | I Present? Yes 🖌 No |
| Remarks: | | | | | | | | |



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: F | Pocahontas County | _ Sampling Date: 5/26/2016 |
|------------------------------------------------------------------------|-------------------|------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | |
| Investigator(s): GB, KO | Section, Towr | nship, Range: <u>No PLSS</u> in this are | |
| Landform (hillslope, terrace, etc.): ridge saddle | | ave, convex, none): none | - |
| Subregion (LRR or MLRA): N Lat: 38.37347 | '694 | Long: <u>-80.06247174</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 I | Remarks.) |
| Are Vegetation, Soil, or Hydrology signific | cantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natural | Ily problematic? | (If needed, explain any answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | wing 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 s | saturated PEM v | 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 | ace (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 | ry (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 Ves Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe) | o_ 🗸 |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| | |
| Remarks: | |
| no hydrology indicators present | |
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Sampling Point: wpoa403_u

| , | Absolute | • Dominant li | adioator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|-------------------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Dominant In Species? | Status | |
| Acer saccharum | 20 | Yes | FACU | Number of Dominant Species |
| | 15 | Yes | FACU | That Are OBL, FACW, or FAC:5 (A) |
| 2. Tsuga canadensis | | | | Total Number of Dominant |
| 3. Betula alleghaniensis | 10 | Yes | FAC | Species Across All Strata: 12 (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL_EACW_or_EAC: 41.666666666 (A/B) |
| | | | | That Are OBL, FACW, or FAC: 41.00000000 (A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | · | | |
| | 45 | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover: 22.5 | 20% of | total cover: | 9 | |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 =90 |
| 1. Crataegus viridis | 10 | Yes | FACW | FAC species x 3 = 30 |
| | 6 | Yes | FACU | FACU species $\frac{82}{x 4} = \frac{328}{x 4}$ |
| 2. Acer pensylvanicum | | | | |
| 3. Acer saccharum | 6 | Yes | FACU | UPL species x 5 = |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =3.27 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 9 | | | | 2 - Dominance Test is >50% |
| | 22 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 11 | | = Total Cove | r 4.4 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| _{1.} Impatiens capensis | 15 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| _{2.} Barbarea vulgaris | 15 | Yes | FACU | |
| 3. Solidago gigantea | 10 | Yes | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| | 10 | · | FACU | be present, unless disturbed or problematic. |
| 4. Galium aparine | | Yes | | Definitions of Four Vegetation Strata: |
| 5. Poa trivialis | 10 | Yes | FACW | |
| 6. Rumex obtusifolius | 10 | Yes | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | | | neight. |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | |
| | 70 | = Total Cove | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 35 | | total cover: | | or size, and woody plants less than 3.20 it tall. |
| 20 | 20% 0 | total cover. | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| 1 | | | | |
| 2 | | | | |
| | | | | |
| 3 | | · | | |
| 4 | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes No V |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | | | | |
| | neet.) | | | |
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| Profile Des | cription: (Describe | to the dept | h needed to docur | nent the inc | licator o | or confirm | the absence o | of indicato | rs.) | | |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------|------------------|
| Depth | Matrix | | Redo | x Features | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | 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 | | | | |
| | | | | | | | | | | | |
| | Concentration, D=Dep | | | | and Gra | | ² Location: PL= | -Pore Lini | og M-Matriy | , | |
| | Indicators: | | | | | | | | oblematic F | | s ³ : |
| Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I | | () | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Su Depleted Dai Redox Depreted Dai Iron-Mangan MLRA 13 | low Surface Irface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F essions (F8) ese Masses | MLRA 14 ?) =7) | 47, 148) | 2 c 148) Co Pie Ver | m Muck (A ast Prairie (MLRA 14 edmont Flo (MLRA 13 ry Shallow | A10) (MLRA Redox (A16 7, 148) odplain Soil: | 147) () (F19) (F17) (F12) | |
| Sandy (Sandy I Stripped | Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed): | | Umbric Surfa Piedmont Flo | ice (F13) (M podplain Soil | s (F19) (| (MLRA 148 | B) wetla | and hydrol | vdrophytic ve logy must be ed or probler | present, | nd |
| Type: no | | | | | | | | | | | |
| Depth (ir | | | | | | | Hydric Soil P | Present? | Yes | No | ~ |
| Remarks: | / | | | | | | | | | | |
| | | | | | | | | | | | |



Photo 1 Upland data point WPOA403_u facing northeast



Photo 2 Upland data point WPOA403_u facing southwest

| Project/Site: Atlantic Coast Pipeline | City/Coun | ty: Pocahontas County | _ Sampling Date: 6/2/2016 | | |
|------------------------------------------------|---------------------------------------|---------------------------------------------|-----------------------------|--|--|
| Applicant/Owner: Dominion | | State: <u></u> | Sampling Point: wpoa413e_w | | |
| Investigator(s): GB, KO | Section, T | Fownship, Range: <u>No PLSS in this are</u> | ea | | |
| Landform (hillslope, terrace, etc.): minor dra | | concave, convex, none): <u>concave</u> | Slope (%): <u>4</u> | | |
| Subregion (LRR or MLRA): <u>N</u> | Lat: -80.08088089 | Long: <u>38.38234607</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classif | ication: PEM | | |
| Are climatic / hydrologic conditions on the si | te typical for this time of year? Yes | ✓ No (If no, explain in | Remarks.) | | |
| Are Vegetation, Soil, or Hydr | ology significantly disturbed | ? Are "Normal Circumstances" | present? Yes 🖌 No | | |
| Are Vegetation, Soil, or Hydr | ology naturally problematic? | (If needed, explain any answ | ers in Remarks.) | | |
| SUMMARY OF FINDINGS – Attac | h site map showing sampli | ng point locations, transect | s, important features, etc. | | |
| | | | | | |

| Hydrophytic Vegetation Present? | Yes _ | v | No | Is the Sampled Area | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|----|---------------------|-----|---|----|--|--|
| Hydric Soil Present? | Yes | ~ | No | within a Wetland? | Yes | ~ | No | | |
| Wetland Hydrology Present? | Yes _ | ~ | No | Within a Wethand. | 100 | | | | |
| 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) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | |
| Field Observations: | |
| Surface Water Present? Yes No 🖌 Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u>V</u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Remarks: | |

Sampling Point: wpoa413e_w

| | Absolute | Dominant In | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | 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 | | | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | | | Desuglasses in desugentiete este |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of:Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species 15 x 1 = 15 |
| 15 | 20% 01 | iotal cover. | | 25 50 |
| Sapling/Shrub Stratum (Plot size:) | | | | 20 60 |
| 1. none | 0 | | | FAC species $x_3 = $ |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | 60 125 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A = 2.08 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | 0 | = Total Cove | - | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Ranunculus acris | 15 | Vaa | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| ••• | | Yes | | |
| _{2.} Glyceria striata | 15 | Yes | OBL | 1 |
| _{3.} Viola cucullata | 10 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4 Poa sylvestris | 10 | No | FACW | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5. Impatiens capensis | 5 | No | FACW | |
| _{6.} Laportea canadensis | 5 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | 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: 30 | 20% of | total cover: | 12 | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| none | 0 | | | height. |
| 1. <u></u> | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes V No |
| 50% of total cover: 0 | | total cover: | <u> </u> | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| | cription: (Describe t | o the dep | | | | or confirm | the absence of inc | licators.) | |
|------------------------|--------------------------------|-----------|-----------------------------|-----------------------|------------------------|------------------|--------------------|--------------------------------------|---------------------------|
| Depth (inchos) | Matrix Color (moist) | % | Redo Color (moist) | <u>x Feature</u> % | s Tvpe ¹ | Loc ² | Texture | Remarks | |
| <u>(inches)</u> 0-4 | 5YR 3/1 | 100 | | % | Type | LOC | SIL | Remarks | |
| 4-18 | 5YR 4/1 | 90 | 5YR 4/6 | 10 | С | PL/M | SICL | | |
| 4-10 | 51R 4/1 | 90 | 51R 4/0 | 10 | | PL/IVI | | | |
| | | | . <u> </u> | | | | | | |
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| | | | | | | | | | |
| | concentration, D=Deple | etion, RM | =Reduced Matrix, MS | S=Maske | d Sand Gra | ains. | | e Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators | for Problematic Hy | dric Soils ³ : |
| Histoso | () | | Dark Surface | | | | | uck (A10) (MLRA 1 | 47) |
| | pipedon (A2) | | Polyvalue Be | | | | | Prairie Redox (A16) | |
| | listic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | | | 47, 148) | • | RA 147, 148) ont Floodplain Soils | (F10) |
| | d Layers (A5) | | Depleted Ma | | (12) | | | RA 136, 147) | (113) |
| | uck (A10) (LRR N) | | Redox Dark | . , | -6) | | • | nallow Dark Surface | (TF12) |
| | d Below Dark Surface | (A11) | Depleted Da | k Surface | e (F7) | | | Explain in Remarks) | · , |
| Thick D | ark Surface (A12) | | Redox Depre | ssions (F | 8) | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (| LRR N, | | | |
| | A 147, 148) | | MLRA 13 | | | | 2 | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , , | • | | | s of hydrophytic veg | |
| | Redox (S5) | | Piedmont Flo | • | . , | • | • | hydrology must be p | |
| | d Matrix (S6) | | Red Parent N | laterial (F | ·21) (MLR | A 127, 147 | () unless d | isturbed or problem | atic. |
| Type: nc | Layer (if observed): | | | | | | | | |
| | | | | | | | | | Na |
| Depth (in | iches): | | | | | | Hydric Soil Prese | ent? Yes 🔽 | No |
| Remarks: | | | | | | | | | |
| 1 | | | | | | | | | |



Wetland data point WPOA413e_w facing north



Wetland data point WPOA413e_w facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | _ Sampling Date: 6/2/2016 | | | | |
|------------------------------------------------------------------|--------------------------|------------------------------------------------|---------------------------|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa413_u | | | | |
| Investigator(s): GB, KO | Section, Township | Section, Township, Range: No PLSS in this area | | | | | |
| Landform (hillslope, terrace, etc.): slope | | convex, none): <u>none</u> | Slope (%): <u>15</u> | | | | |
| Subregion (LRR or MLRA): N Lat: -80 | .08095874 | Long: <u>38.38235832</u> | Datum: WGS 1984 | | | | |
| Soil Map Unit Name: | | NWI classifi | cation: UPLAND | | | | |
| Are climatic / hydrologic conditions on the site typical for thi | is time of year? Yes I | 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 | | ン ン ン | Is the Sampled Area within a Wetland? | Yes | No | × |
|---------------------------------------------------------------------------------------|-------------------|--------|--------------|---------------------------------------|-----|----|---|
| Remarks: Upland data point taken on slope above | a saturated PF | M seer | wetland loca | ated in a minor 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) |
| Primary Indicators (minimum of one is required; check all that apply) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) Aquatic Fauna (B13) | Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u>'</u> Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No 🗸 |
| (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| | |

Sampling Point: wpoa413_u

| , , , | Absolute | Dominant li | ndicator | Dominance Test worksheet: |
|----------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | 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 | 10 | 165 | FACU | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 33.33333333 (A/B) |
| 6 | | | | (, |
| 7. | | | | Prevalence Index worksheet: |
| | 75 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: <u>37.5</u> | | total cover: | 15 | OBL species 0 x 1 = 0 |
| 15 | 2070.01 | total 00ver | | FACW species 0 x 2 = 0 |
| Sapling/Shrub Stratum (Plot size:) 1 Fagus grandifolia | 15 | Yes | FACU | FAC species $31 \times 3 = 93$ |
| | 7 | | | 02 269 |
| 2. Acer pensylvanicum | | Yes | FACU | FACU species 92 x 4 = 300 |
| 3. Betula alleghaniensis | 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: |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | 29 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover:14.5 | | = Total Cove | r 5.8 | 4 - Morphological Adaptations ¹ (Provide supporting |
| F | 20% 0 | total cover: | | data in Remarks or on a separate sheet) |
| | F | | FAOL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Anemone quinquefolia | 5 | Yes | FACU | |
| 2. Viola rotundifolia | 4 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex blanda | 4 | Yes | FAC | be present, unless disturbed or problematic. |
| 4. Allium tricoccum | 3 | No | FACU | Definitions of Four Vegetation Strata: |
| _{5.} Dryopteris carthusiana | 3 | No | FAC | - |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| _ | | | | lieght. |
| 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 | 10 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 0.5 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: <u>9.5</u> | 20% of | total cover: | 3.8 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | I hadron had a |
| 5 | | | | Hydrophytic Vegetation |
| ·· | - | = Total Cove | r | Present? Yes No |
| 50% of total cover: 0 | | total cover: | • | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate sl | neet.) | | | |
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| Profile Desc | cription: (Describe t | o the depth | needed to docur | nent the i | ndicator | or confirm | the absence of in | dicators.) | |
|-------------------------|-----------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------|-----------------------------------------|--------------------|------------------|------------------------------|------------------------------------------------------------------------------------------------------------------|------------|
| Depth | Matrix | | Redo | x Features | 6 | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remark | S |
| 0-2 | 5YR 2.5/2 | 100 | | | | | L | | |
| 2-10 | 5YR 3/3 | 100 | | | | | SCL | | |
| 10-18 | 5YR 3/4 | 100 | | | | | SCL | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| ¹ Type: C=Ce | oncentration, D=Deple | etion. RM=R | educed Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL=Po | re Lining, M=Matr | ix. |
| Hydric Soil | | | · · · · · · · · · · · · · · · · · · · | | | | | for Problematic | |
| Black Hi Hydroge | (A1) bipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma | low Surfac rface (S9) d Matrix (I | (MLRA 1 | | 148) Coast (ML Piedmo | 1uck (A10) (MLRA Prairie Redox (A1 RA 147, 148) ont Floodplain Soi RA 136, 147) | 6) |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark \$ | Surface (F | 6) | | Very S | hallow Dark Surfa | ice (TF12) |
| | d Below Dark Surface | (A11) | Depleted Dar | | | | Other (| Explain in Remar | ks) |
| | ark Surface (A12) | | Redox Depre | • | , | | | | |
| | lucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | · / · | | | | s of hydrophytic v | • |
| - | Redox (S5) | | Piedmont Flo | • | • • | • | • | hydrology must b | • |
| - | Matrix (S6) | | Red Parent N | laterial (F2 | 21) (MLR | A 127, 147 |) unless o | listurbed or proble | ematic. |
| | Layer (if observed): | | | | | | | | |
| Type: <u>no</u> | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pres | ent? Yes | No |
| Remarks: | | | | | | | | | |



Upland data point WPOA413_u facing southwest



Upland data point WPOA413_u facing west

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | Sampling Date: 6/2/2016 | |
|------------------------------------------------------------------------|-------------------|------------------------------------------|-----------------------------|--|
| Applicant/Owner: Dominion | | State: WV | | |
| Investigator(s): GB, KO | Section, Tow | nship, Range: <u>No PLSS in this are</u> | | |
| Landform (hillslope, terrace, etc.): <u>ditch</u> | | cave, convex, none): <u>concave</u> | Slope (%): <u>2</u> | |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>-80.0823</u> | 806 | 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 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 | Illy problematic? | (If needed, explain any answ | vers in Remarks.) | |
| SUMMARY OF FINDINGS – Attach site map show | wing 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 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) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | 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>✓</u> No Depth (inches): 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u>V</u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| | |
| Remarks: | |
| | |
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Sampling Point: wpoa414e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:3 (A) |
| | | | | |
| 2 | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>3</u> (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species 35 x 1 = 35 |
| 15 | 20% 0 | total cover: | - | |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species 25 x 2 = 50 |
| 1. none | 0 | | | FAC species X 3 = |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| | | · | | UPL species $0 \times 5 = 0$ |
| 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 | | | | |
| | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | · | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | - | 4 - Morphological Adaptations ¹ (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 | 20 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Glyceria striata | 15 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| _{З.} Impatiens capensis | 15 | Yes | FACW | be present, unless disturbed or problematic. |
| 4. Carex prasina | 10 | No | OBL | |
| 5. Carex gynandra | 10 | No | OBL | Definitions 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.} Lysimachia nummularia | 5 | No | FACW | height. |
| 8. | | | | Ŭ |
| 0 | | | | 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 |
| | 80 | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 40 | | 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 | | . <u> </u> | | Hydrophytic |
| 5. | | | | Vegetation |
| | 0 | = Total Cove | | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | | | ~ | |
| 50% of total cover: 0 | 20% 0 | total cover: | - | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| (inches) Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-10 5YR 4/2 97 5YR 4/6 3 C PL/M SICL rock at 10" | Depth | cription: (Describe to Matrix | | | x Features | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 0-10 5YR 4/2 97 5YR 4/6 3 C PL/M SICL rock at 10" | | | % | | | 1 | Loc ² | Texture | Remarks |
| Hydric Soil Indicators: Indicators for Problematic Hydric S | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric S | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric S | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric S | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric S | ¹ Type: C=C | oncentration, D=Deple | etion, RM | Reduced Matrix, M | S=Masked | Sand Gra | ains. | ² Location: F | - PL=Pore Lining, M=Matrix. |
| | | | | , , , | | | | | cators for Problematic Hydric Soils ³ : |
| Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation wetland hydrology must be present unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) wetland hydrology must be present unless disturbed or problematic. Type: rock rock rock | Histic E Black H Hydroge Stratifie 2 cm Mu Deplete Thick Di Sandy M | pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L I | . , | Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan | elow Surfac urface (S9) ed Matrix (I trix (F3) Surface (F rk Surface essions (F8 esse Masse | (MLRA 1 =2) 6) (F7) 3) | 47, 148) | 148) | Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) |
| Type: rock | Sandy C Sandy F Stripped | Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | Umbric Surfa Piedmont Flo | ace (F13) (podplain So | oils (F19) | (MLRA 14 | • 8) w | |
| Depth (inches): 10 Yes Yes No | Type: ro | ck | | | | | | | |
| | Depth (in | ches): <u>10</u> | | | | | | Hydric So | il Present? Yes 🖌 No |
| Remarks: | 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: Dominion | | State: WV | Sampling Point: wpoa414_u | | |
| Investigator(s): GB, KO | Section, Tow | nship, Range: <u>No PLSS in this are</u> | | | |
| Landform (hillslope, terrace, etc.): slope | | 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 | ication: 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 | Is the Sampled Area within a Wetland? | Yes | No | |
|---------------------------------------------------------------------------------------|-------------------|--------------------|---------------------------------------|-----------------|----------|--|
| Remarks: Upland data point taken on a gentle slo | ope above a satu | urated PEM seep we | tland located in a ditch along | a existing grav | el 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 Roo | ts (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (| C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u></u> | |
| Water Table Present? Yes No _ | |
| Saturation Present? Yes No <u>V</u> Depth (inches): We (includes capillary fringe) | etland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections | s), if available: |
| | |
| Remarks: | |
| no hydrology indicators present | |
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Sampling Point: wpoa414_u

| , , , | | • | P . | |
|---------------------------------------------------------|----------------------|---------------|-----------------------|----------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | Absolute | Dominant In | | Dominance Test worksheet: |
| | <u>% Cover</u> 25 | | <u>Status</u> FACU | Number of Dominant Species |
| 1. Fagus grandifolia | | Yes | | That Are OBL, FACW, or FAC: 1 (A) |
| 2. Acer saccharum | 20 | Yes | FACU | |
| 3. Betula alleghaniensis | 10 | No | FAC | Total Number of Dominant |
| | 10 | No | FACU | Species Across All Strata: (B) |
| 4. Prunus serotina | | | | Dense to (Density of Oreasian |
| _{5.} Fraxinus pennsylvanica | 5 | No | FACW | Percent of Dominant Species That Are OBL_EACW_or_EAC: 14.28571428 (A/B) |
| | | | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | | <u> </u> | Prevalence Index worksheet: |
| 7 | | | | |
| | 70 | = Total Cover | | Total % Cover of:Multiply by: |
| 50% of total cover: 35 | | total cover: | 14 | OBL species x 1 =0 |
| 15 | 2070.01 | | | FACW species5 x 2 =10 |
| Sapling/Shrub Stratum (Plot size:) | | | | 07 01 |
| _{1.} Fagus grandifolia | 12 | Yes | FACU | FAC species x 3 = |
| _{2.} Acer pensylvanicum | 6 | Yes | FACU | FACU species x 4 = 360 |
| 3. Betula alleghaniensis | 6 | Yes | FAC | UPL species x 5 =0 |
| | | | | 122 /51 |
| 4. Acer saccharum | 2 | No | FACU | Column Totals: (A) (B) |
| 5 | | | | 0.00 |
| | | | | 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 $≤3.0^{1}$ |
| | 26 | = Total Cover | | |
| 50% of total cover: ¹³ | | total cover: | 5.2 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | | | | data in Remarks or on a separate sheet) |
| , | 4- | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Podophyllum peltatum | 15 | Yes | FACU | |
| _{2.} Stellaria pubera | 10 | Yes | | |
| 3. Carex amphibola | 7 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4. Dryopteris carthusiana | 4 | No | FAC | Definitions of Four Vegetation Strata: |
| 5 | | | | Demilions of Four Vegetation Orada. |
| | | | | 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. | | | | |
| · · · · | 36 | | | 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: 18 | 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 | | | noight. |
| | | | | |
| 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 | | | | |
| | , | | | |
| | | | | |

| Profile Desc | cription: (Describe t | o the de | oth needed to docur | nent the | indicator | or confirm | the absence of | indicator | 's.) | | |
|--------------|-------------------------------|-----------|---------------------|-------------|------------------------------|------------------|-----------------------------|-------------|------------------|----------------------------|---|
| Depth | Matrix | | Redo | x Feature | S | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | 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 | | | | _ |
| | | | | | | | | | | | — |
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| <u> </u> | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | oncentration, D=Deple | etion, RM | =Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | ² Location: PL=F | Pore Linin | g, M=Matrix | • | |
| Hydric Soil | Indicators: | | | | | | Indicato | rs for Pro | blematic H | ydric Soils ³ : | |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 cm | Muck (A | 10) (MLRA | 147) | |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfa | ice (S8) (N | ILRA 147, | 148) Coas | st Prairie | Redox (A16 |) | |
| | istic (A3) | | Thin Dark Su | rface (S9 |) (MLRA 1 | 47, 148) | • | ILRA 147 | | | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix | (F2) | | Pied | mont Floo | odplain Soils | s (F19) | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (N | ILRA 136 | , 147) | | |
| | uck (A10) (LRR N) | | Redox Dark | • | , | | | | Dark Surfac | | |
| Deplete | d Below Dark Surface | (A11) | Depleted Date | | | | Othe | er (Explair | in Remark | s) | |
| | ark Surface (A12) | | Redox Depre | | | | | | | | |
| | /lucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | | | | |
| | A 147, 148) | | MLRA 13 | , | | | 0 | | | | |
| | Eleyed Matrix (S4) | | Umbric Surfa | . , | • | | | • | | getation and | |
| | Redox (S5) | | Piedmont Flo | • | , , | • | • | • | ogy must be | • | |
| | l Matrix (S6) | | Red Parent N | Aaterial (F | ⁻ 21) (MLR | A 127, 147 | ') unless | s disturbe | d or probler | natic. | |
| | Layer (if observed): | | | | | | | | | | |
| Type: no | ne | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pro | esent? | 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 | | State: WV | Sampling Point: wpoa410e_w |
| Investigator(s): GB, KO | _ Section, Towr | nship, Range: No PLSS in this are | ea |
| Landform (hillslope, terrace, etc.): minor draw | | ave, convex, none): <u>concave</u> | _ |
| Subregion (LRR or MLRA): N Lat: -80.07692445 | 5 | Long: <u>38.37576507</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: PEM |
| Are climatic / hydrologic conditions on the site typical for this time of y | rear?Yes 🖌 | No (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology significantly | y disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally pr | roblematic? | (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | g 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: | | | | | |

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 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 | bils (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 <u>/</u> No Depth (inches): 0 | Wetland Hydrology Present? Yes 🖌 No |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| Remarks: | |
| Konarks. | |
| | |
| | |
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| | |

Sampling Point: wpoa410e_w

| | Absolute | Dominant I | ndiantar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| Fraxinus pennsylvanica | 5 | Yes | FACW | Number of Dominant Species |
| | | | | That Are OBL, FACW, or FAC:4 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | <u> </u> | Species Across All Strata:4 (B) |
| 4 | | · | | Dereent of Deminent Species |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | - | | | Prevalence Index worksheet: |
| 7 | | | | |
| | 5 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 2.5 | | | 1 | OBL species0 x 1 =0 |
| | 20% of | total cover: | <u> </u> | |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACTV species $x = $ |
| 1. Crataegus viridis | 8 | Yes | FACW | FAC species $0 	 x 3 = 0$ |
| | | · | | FACU species $5 	 x 4 = 20$ |
| 2 | | . <u> </u> | | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals: 58 (A) 126 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = $B/A = 2.17$ |
| | | | | |
| 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 ¹ |
| | 8 | = Total Cove | r | |
| 50% of total cover: 4 | 20% of | total cover: | 1.6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | 10101 00101. | | data in Remarks or on a separate sheet) |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Impatiens capensis | 20 | Yes | FACW | |
| 2. Poa palustris | 10 | Yes | FACW | |
| | | Nie | <u> </u> | ¹ 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: |
| 5 | | 110 | TACI | Tree Mandy planta avaluding vince 2 in (7.6 am) or |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of |
| / | | · | <u> </u> | 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. |
| 10 | | · | <u> </u> | |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 45 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 22.5 | | total cover: | | |
| | 20% 0 | total cover. | • | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 none | 0 | | | |
| | | · | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | · | <u> </u> | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes Vo No |
| 50% of total cover: 0 | | total cover: | | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
| | | | | |
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| | | | | |
| | | | | |
| 1 | | | | |

| Depth | Matrix | | Redo | x Features | | | | | |
|------------------------|----------------------------------------------------|-----------|---------------------------------------------|-------------|-------------------|------------------|------------------------|-----------------------------------------------------------------------|------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-3 | 5YR 3/2 | 100 | | | | | SIL | | |
| 3-8 | 5YR 4/2 | 100 | | | | | SICL | | |
| 8-18 | 5YR 5/2 | 95 | 5YR 4/6 | 5 | С | PL/M | SIC | | |
| | | | | | | | | | |
| | Concentration, D=Depl il Indicators: ol (A1) | etion, RM | =Reduced Matrix, M | | Sand Gra | ains. | Indicators | re Lining, M=Matrix. for Problematic Hyd luck (A10) (MLRA 147 | |
| Histic I Black I | Epipedon (A2) Histic (A3) gen Sulfide (A4) | | Polyvalue Be Thin Dark Su Loamy Gleye | low Surface | (MLRA 1 | | 148) Coast F (MLI | Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F | |
| | ed Layers (A5) | | Depleted Ma | | , | | | RA 136, 147) | , |
| | /luck (A10) (LRR N) | <i></i> | Redox Dark | | , | | | hallow Dark Surface (| TF12) |
| · | ed Below Dark Surface Dark Surface (A12) | ∋ (A11) | Depleted Date Redox Depre | | , | | Other (| Explain in Remarks) | |
| Sandy | Mucky Mineral (S1) (L | .RR N, | Iron-Mangan | ese Masses | | LRR N, | | | |
| | RA 147, 148) | | MLRA 13 | • | | 6 400) | ³ Indiantar | a of hudrophytic years | lation and |
| | Gleyed Matrix (S4) Redox (S5) | | Umbric Surfa | . , . | | | | s of hydrophytic veget hydrology must be pre | |
| | ed Matrix (S6) | | Red Parent N | • | . , | • | • | listurbed or problemat | |
| Strippe | e Layer (if observed): | | | | / . | , | , | | |
| Restrictive | | | | | | | | | |
| Restrictive | silty clay | | | | | | | | |
| Restrictive Type: s | silty clay inches): <u>8</u> | | | | | | Hydric Soil Pres | ent? Yes 🖌 | No |



Wetland data point WPOA410e_w facing west



Wetland data point WPOA410e_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: 6/1/2016 | | |
|-----------------------------------------------------------------|--------------------------|--------------------------------------------|---------------------------|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa410_u | | |
| Investigator(s): GB, KO | Section, Township | o, Range: <u>No PLSS in this area</u> | | | |
| Landform (hillslope, terrace, etc.): slope | | Local relief (concave, convex, none): none | | | |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>-80</u> | 0.07691914 | Long: <u>38.37581916</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classific | ation: UPLAND | | |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in R | emarks.) | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" p | oresent? Yes 🖌 No | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any answe | rs in Remarks.) | | |
| | | | • • • • • • | | |

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

| Hydrophytic Vegetation Present? 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 at | oove a saturate | ed PEM seep wetland | located in a minor draw. | | | |

HYDROLOGY

I

| Wetland Hydrology Indicators: | 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) Aquatic Fauna (B13) | Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u>'</u> Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No 🗸 |
| (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| | |

Sampling Point: wpoa410_u

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|----------------------------------------------------------|----------|---------------|----------|----------------------------------------------------------------------------------------|
| 00 | | | Status | |
| Acer saccharum | 25 | Yes | FACU | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| 2. Quercus rubra | 20 | Yes | FACU | |
| 3. Fagus grandifolia | 15 | Yes | FACU | Total Number of Dominant |
| 4. Betula alleghaniensis | 5 | No | FAC | Species Across All Strata: 9 (B) |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | | = Total Cover | | |
| 50% of total cover: 32.5 | 20% of | total cover: | 13 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x = 20$ |
| 1. Fagus grandifolia | 8 | Yes | FACU | FAC species $x_3 = $ |
| 2. Betula alleghaniensis | 5 | Yes | FAC | FACU species x 4 =368 |
| 3. Crataegus viridis | 4 | No | FACW | UPL species x 5 =0 |
| 4. Acer saccharum | 4 | No | FACU | Column Totals: (A) (A) (B) |
| 5. Quercus rubra | 3 | No | FACU | |
| 0 | | | | Prevalence Index = B/A =3.8 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | <u> </u> | 2 - Dominance Test is >50% |
| 9 | <u> </u> | <u> </u> | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 12 | 20% of | total cover: | 4.8 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Luzula multiflora | 7 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Anthoxanthum odoratum | 5 | Yes | FACU | |
| 3. Anemone quinquefolia | 5 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 4 Stellaria pubera | 5 | Yes | | be present, unless disturbed or problematic. |
| 5. Viola canadensis | 3 | No | FAC | Definitions of Four Vegetation Strata: |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | · | | height. |
| 8 | | . <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 |
| | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 12.5 | 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 | | | | |
| 5 | | · | | Hydrophytic Versteijen |
| ⁰ | - | = Total Cover | | Vegetation Present? Yes <u>No</u> Vo |
| 50% of total cover: 0 | | | • | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate sh | neet.) | | | |
| | | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docur | nent the in | dicator o | or confirm | the absence of indic | ators.) | |
|-------------|--------------------------------------------------|-------------------|------------------------------|--------------|---------------------|--------------------|--------------------------------|----------------------------------|-----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remark | S |
| 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> | <u> </u> | | |
| | | | | · | | | | | |
| | | | | | | | | | |
| | | <u> </u> | | | | | <u> </u> | | |
| <u> </u> | | · | | · | | | | | |
| | oncentration, D=Depl | | | | Cand Cro | | ² Leastion: DL Dara | ining M. Motr | |
| Hydric Soil | | | Reduced Matrix, Ma | S=IVIASKEU C | Sanu Gra | | ² Location: PL=Pore | U . | Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | · · / | () (| | 2 cm Muo | k (A10) (MLRA | A 147) |
| | pipedon (A2) | | Polyvalue Be | | | | | irie Redox (A1 | 6) |
| | istic (A3) | | Thin Dark Su | . , . | • | 47, 148) | • | 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | 2) | | | Floodplain Soi | lis (F19) |
| | d Layers (A5) | | Depleted Ma Redox Dark \$ | · , | • | | • | 136, 147) | ACC (TE12) |
| | uck (A10) (LRR N) d Below Dark Surface | (11) | Depleted Dark | · · | , | | | low Dark Surfa olain in Remar | () |
| · | ark Surface (A12) | (ATT) | Redox Depre | | , | | | Jain in Remai | K5) |
| | Aucky Mineral (S1) (L | | Iron-Mangan | · · / | | | | | |
| - | A 147, 148) | ixix i x , | MLRA 13 | | 5 (1 12) (L | -i\i\ i \ , | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | NI RA 130 | 6 122) | ³ Indicators (| f bydrophytic y | regetation and |
| | Redox (S5) | | Piedmont Flo | | | | | drology must b | • |
| | d Matrix (S6) | | Red Parent N | • | . , | • | | urbed or proble | • |
| | Layer (if observed): | | | | ., (| ,, | | | indio. |
| Type: no | | | | | | | | | |
| Depth (in | | | | | | | Hydric Soil Presen | ? Yes | No |
| Remarks: | | | | | | | 1 | | |



Upland data point WPOA410_u facing northeast



Upland data point WPOA410_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pc | ocahontas County | _ Sampling Date: 6/2/2016 |
|--------------------------------------------------------|--------------------------------|----------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa411e_w |
| Investigator(s): GB, KO | Section, Towns | hip, Range: <u>No PLSS in this are</u> | a |
| Landform (hillslope, terrace, etc.): draw | | ve, convex, none): <u>concave</u> | |
| Subregion (LRR or MLRA): <u>N</u> | Lat: -80.0775382 | Long: <u>38.37775821</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: PEM |
| Are climatic / hydrologic conditions on the site typic | cal for this time of year? Yes | _ No (If no, explain in I | 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 answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site | e map showing sampling p | oint locations, transects | 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 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 (C1) | Drainage Patterns (B10) |
| ✓ Saturation (A3) Oxidized Rhizospheres on L | iving 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 Til | led 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 <u></u> | |
| Water Table Present? Yes <u></u> | |
| Saturation Present? Yes <u></u> No Depth (inches): 0 | Wetland Hydrology Present? Yes <u></u> No |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous i | nspections), if available: |
| Remarks: | |
| Remarks. | |
| | |
| | |
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| | |

Sampling Point: wpoa411e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|-------------------------------------|-------------|---------------|----------|-------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| 1. none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: 3 |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 4 (B) |
| 4 | | | | 、 |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 75 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | - | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species X 1 = 35 |
| 50% of total cover: 0 | 20% of | total cover: | | |
| Sapling/Shrub Stratum (Plot size:) | | | | $\begin{array}{c} \text{FACW species} \\ \underline{} \\ 29 \\ 29 \\ 20 \\ 34 \\ 34 \\ 34 \\ 34 \\ 34 \\ 34 \\ 34 \\ 3$ |
| _{1.} Betula alleghaniensis | 4 | Yes | FAC | FAC species X 3 = |
| 2 Picea rubens | 2 | Yes | FACU | FACU species2 x 4 =8 |
| L | | | | UPL species $0 \times 5 = 0$ |
| 3 | | . <u> </u> | | 86 169 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | 4.00 |
| | | · | | Prevalence Index = B/A =1.96 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | - | | | ✓ 2 - Dominance Test is >50% |
| 9 | | · | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: <u>3</u> | 20% of | total cover: | 1.2 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Carex gynandra | 25 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Impatiens capensis | 15 | Yes | FACW | ¹ Indiantors of hydric coll and watered hydrology must |
| _{3.} Monarda didyma | 12 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. Ranunculus acris | 12 | No | FAC | |
| 5. Glyceria striata | 10 | · | | Definitions of Four Vegetation Strata: |
| | | No | OBL | Tree Meady plants evaluation visco 2 in (7.0 pm) or |
| 6. Viola cucullata | 6 | No | FACW | 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 | 80 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 40 | 20% of | total cover: | 16 | Woody vine All woody vince greater than 2.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| , none | 0 | | | |
| | | · | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 4 | | · | | |
| 4 5 | | | | Vegetation |
| | | = Total Cove | | |
| | 0 | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | = Total Cover | ~ | Vegetation |
| 5 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |
| 5 50% of total cover:0 | 0 20% of | | ~ | Vegetation |

| Profile Desc | cription: (Describe to | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence | of indicators.) |
|-----------------|-------------------------------------------|-----------|--------------------------|--------------|--------------------|------------------|--------------------------|-----------------------------------------------------|
| Depth | Matrix | | | x Feature | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-6 | 5YR 3/2 | 100 | | | . <u> </u> | | SICL | |
| 6-13 | 5YR 4/2 | 95 | 5YR 4/6 | 5 | С | PL/M | SICL | rock at 13" |
| | | | | | | | | |
| | | | | | · | | | |
| | | | | | | | | |
| · | | | | | . . <u></u> | | | |
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| | | | | | | | | |
| | oncentration, D=Deple | tion RM | -Reduced Matrix M | S-Masko | d Sand Gr | aine | ² Location: P | L=Pore Lining, M=Matrix. |
| Hydric Soil | , , | | | | | uno. | | ators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 | 2 cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | 148) (| Coast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | | , . | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | F | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) uck (A10) (LRR N) | | ✓ Depleted Ma Redox Dark | . , | 56) | | , | (MLRA 136, 147) /ery Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Date | • | , | | | Other (Explain in Remarks) |
| | ark Surface (A12) | () | Redox Depre | | . , | | _ ` | |
| Sandy N | /lucky Mineral (S1) (LI | RR N, | Iron-Mangan | ese Mass | ses (F12) (| LRR N, | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | , , | • | | | licators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | • | . , | • | • | etland hydrology must be present, |
| | Matrix (S6) | | Red Parent N | /laterial (H | -21) (MLR | A 127, 147 | ') un | less disturbed or problematic. |
| Type: <u>no</u> | Layer (if observed): | | | | | | | |
| | | | | | | | | |
| Depth (in | cnes): | | | | | | Hydric Soi | Present? Yes Vo No |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Wetland data point WPOA411e_w facing west



Wetland data point WPOA411e_w facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocah | ontas County | Sampling Date: 6/2/2016 |
|------------------------------------------------------------------|-----------------------------|-----------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa411_u |
| Investigator(s): GB, KO | Section, Township, | Range: No PLSS in this area | |
| Landform (hillslope, terrace, etc.): slope | | convex, none): <u>none</u> | Slope (%): <u>12</u> |
| Subregion (LRR or MLRA): N Lat: -8 | 80.0775766 | 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 the | his time of year? Yes N | o (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology | _significantly disturbed? A | re "Normal Circumstances" p | oresent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | _naturally problematic? (I | f 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 slope above | a acturated DE | | ated in a draw | | |
| Opiand data point taken on slope above | | in seep wettand loca | aleu in a uraw. | | |
| | | | | | |
| | | | | | |

| 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 |
| | |
| Saturation Present? Yes No Ves Depth (inches): | |
| Saturation Present? Yes No Ves Depth (inches): | |
| Saturation Present? Yes No 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 | |
| Saturation Present? Yes No 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 | |
| Saturation Present? Yes No 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 | |
| Saturation Present? Yes No 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 | |
| Saturation Present? Yes No 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 | |

Sampling Point: wpoa411_u

| | Abaaluta | Deminent | la d'anton | Deminence Test worksheet: |
|---------------------------------------------------------|---------------------|------------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % Cover | Dominant Species? | Status | Dominance Test worksheet: |
| 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 | · · · · · · · · · · · · · · · · · · · |
| 5 | | | | Percent of Dominant Species |
| | | · | | That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B) |
| 6 | | . <u> </u> | | Prevalence Index worksheet: |
| 7 | | | | |
| | 70 | = Total Cove | er | Total % Cover of: Multiply by: |
| 50% of total cover: 35 | 20% of | total cover: | 14 | OBL species x 1 = |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 =0 |
| 1. Fagus grandifolia | 20 | Yes | FACU | FAC species x 3 =123 |
| | 6 | | FAC | FACU species 74 x 4 = 296 |
| 2. Betula alleghaniensis | | Yes | | |
| 3. Acer rubrum | 2 | No | FAC | UPL species x 5 = |
| 4. Acer saccharum | 2 | No | FACU | Column Totals:115 (A)419 (B) |
| | | · | | |
| 5 | | <u> </u> | | Prevalence Index = $B/A = $ 3.64 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | | | ✓ 2 - Dominance Test is >50% |
| 9 | 30 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 45 | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:15 | 20% of | total cover: | 6 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1 Anemone quinquefolia | 7 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Erythronium umbilicatum | 4 | Yes | FAC | |
| | 4 | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Dryopteris carthusiana | 4 | Yes | FAC | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Deminions of Four Vegetation offata. |
| | | | | 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 | | | | Contine/Charles Weeds state evolution vises less |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| | | | | , |
| 11 | 45 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 7.5 | 20% of | total cover: | 3 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | neight. |
| | | · | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | I hadrow had in |
| 5 | | | | Hydrophytic Vegetation |
| ·· | | = Total Cove | | Present? Yes V No |
| | | | | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | neel.) | | | |
| | | | | |
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| Depth | Matrix Redox Features | | | | | | | | |
|-----------|---------------------------------------|-------------|---------------|--------------------------|--------------------|---------|--------------------|-------------------------------------------------------------|-----------------------------|
| inches) | Color (moist) | % | Color (moist) | <u>%</u> Тур | be ¹ Lo | | Texture | Remarks | S |
| 0-2 | 5YR 2.5/2 | 100 | | | | | L | | |
| 2-9 | 5YR 3/3 | 100 | | | | | CL | | |
| 9-18 | 5YR 3/4 | 100 | | | | | SCL | | |
| | · | | | | | | | | |
| | Concentration, D=Depl | letion, RM= | | | d Grains. | 2 | | Lining, M=Matri r Problematic I ck (A10) (MLRA | Hydric Soils ³ : |
| | Epipedon (A2) | | | elow Surface (St | B) (MLRA | 147. 14 | | airie Redox (A16 | • |
| | listic (A3) | | · | urface (S9) (MLF | , . | | • | A 147, 148) | |
| | en Sulfide (A4) | | | ed Matrix (F2) | · | • | Piedmon | t Floodplain Soil | ls (F19) |
| Stratifie | ed Layers (A5) | | Depleted Ma | atrix (F3) | | | (MLR/ | A 136, 147) | |
| _ 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F6) | | | Very Sha | llow Dark Surfa | ce (TF12) |
| _ Deplete | ed Below Dark Surface | e (A11) | Depleted Da | rk Surface (F7) | | | Other (E: | plain in Remark | ks) |
| | Oark Surface (A12) | | Redox Depr | , , | | | | | |
| | Mucky Mineral (S1) (L | .RR N, | | nese Masses (F1 | 2) (LRR | N, | | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | · , · | | • | | of hydrophytic v | - |
| | Redox (S5) | | | oodplain Soils (F | , . | | | drology must be | • |
| | d Matrix (S6) Layer (if observed): | | | Material (F21) (N | | 7, 147) | | turbed or proble | malic. |
| Type: n | | | | | | | | | |
| | nches): | | | | | | Hydric Soil Preser | t? Yes | No 🖌 |
| | | | | | | | | | |



Upland data point WPOA411_u facing west



Upland data point WPOA411_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pocah | nontas County | _ Sampling Date: <u>6/2/2016</u> |
|--------------------------------------------------------|-------------------------------------------------------|-------------------------------|----------------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa415e_w |
| Investigator(s): GB, KO | Section, Township, | Range: No PLSS in this are | a |
| Landform (hillslope, terrace, etc.): swale | Local relief (concave, o | convex, none): <u>concave</u> | Slope (%): <u>4</u> |
| Subregion (LRR or MLRA): N | Lat: <u>-80.08433167</u> | Long: <u>38.38239601</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: PEM |
| Are climatic / hydrologic conditions on the site typic | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? A | re "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (I | If needed, explain any answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach sit | e map showing sampling poir | nt locations, transect | s, important features, etc. |
| · · · · · · · · · · · · · · · · · · · | ✓ No ✓ No ✓ No ✓ No | | 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 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 | 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 <u><!--</u--> No <u>Depth</u> (inches): 0</u> | Wetland Hydrology Present? Yes <u></u> No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tiona) if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | lions), il avallable. |
| Remarks: | |
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Sampling Point: wpoa415e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1, none | 0 | | | That Are OBL, FACW, or FAC: ⁵ (A) |
| | | | | |
| 2 | | | <u> </u> | Total Number of Dominant |
| 3 | | | | Species Across All Strata:5 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | <u> </u> | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | | | Desuglasses in desugentiete est. |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of:Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species40 x 1 =40 |
| 15 | 20 % 01 | total cover. | | FACW species 15 x 2 = 30 |
| Sapling/Shrub Stratum (Plot size:) | | | | 10 20 |
| 1. none | 0 | | | FAC species $x_3 = $ |
| 2 | | | | FACU species x 4 =0 |
| | | | | UPL species x 5 =0 |
| 3 | | | | 65 100 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index $= B/A = 1.53$ |
| | | | | |
| 6 | | | <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9. | | | | |
| 0 | 0 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | r O | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Micranthes micranthidifolia | 15 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Glyceria striata | 15 | Yes | OBL | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex scabrata | 10 | Yes | OBL | be present, unless disturbed or problematic. |
| 4. Veratrum viride | 10 | Yes | FACW | |
| 5. Ranunculus acris | 10 | Yes | FAC | Definitions 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. |
| 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 |
| | 65 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 32.5 | | 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 | | total cover: | <u> </u> | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe t | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence | of indicator | 's.) | |
|-----------------|-------------------------------------------|-----------|----------------------------|-------------|------------------------------|------------------|---------------------------|--------------|--------------------|----------------------------|
| Depth | Matrix | | | x Feature | s | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-6 | 5YR 2.5/1 | 100 | | | . <u> </u> | | SICL | | | |
| 6-18 | 5YR 3/1 | 97 | 5YR 4/6 | 3 | С | PL/M | SICL | | | |
| | | | | | | | | | | |
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| 1 <u> </u> | | | | | | | 2 | | | |
| Hydric Soil | oncentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location: PL | | 0, | ydric Soils ³ : |
| Histosol | | | Dark Surface | (97) | | | | | 10) (MLRA 1 | |
| | pipedon (A2) | | Polyvalue Be | | ace (S8) (N | ILRA 147. | | • | Redox (A16) | • |
| | istic (A3) | | Thin Dark Su | | • • • | | · | (MLRA 147 | . , | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix | (F2) | | Pie | edmont Floo | odplain Soils | (F19) |
| | d Layers (A5) | | Depleted Ma | () | | | | (MLRA 136 | | |
| | uck (A10) (LRR N) | () | Kedox Dark | • | , | | | • | Dark Surface | · / |
| | d Below Dark Surface ark Surface (A12) | (A11) | Depleted Da Redox Depre | | | | Ot | ner (Explair | n in Remarks |) |
| | Aucky Mineral (S1) (L l | | Iron-Mangan | | | | | | | |
| | A 147, 148) | , | MLRA 13 | | , ee (<u>_</u>) (| , | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | (MLRA 13 | 6, 122) | ³ India | cators of hy | drophytic veg | getation and |
| Sandy F | Redox (S5) | | Piedmont Flor | odplain S | Soils (F19) | (MLRA 14 | 8) wet | land hydrolo | ogy must be | present, |
| | d Matrix (S6) | | Red Parent N | Aaterial (F | ⁻ 21) (MLR | A 127, 147 | ') unle | ess disturbe | d or problem | atic. |
| | Layer (if observed): | | | | | | | | | |
| Type: <u>no</u> | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil | Present? | Yes 🖌 | No |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Wetland data point WPOA415e_w facing northeast



Wetland data point WPOA415e_w facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas | County | _ Sampling Date: 6/2/2016 |
|-------------------------------------------------------------------|--------------------------------|------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa415_u |
| Investigator(s): GB, KO | Section, Township, Rang | e: No PLSS in this are | a |
| Landform (hillslope, terrace, etc.): slope | Local relief (concave, conve | | Slope (%): <u>8</u> |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>-80.0</u> | 8431554 Long: | 38.38238747 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: UPL |
| 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 | unificantly disturbed? Are "No | ormal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology na | turally problematic? (If need | ded, 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 on a gentle slop | e for a saturate | d PEM | l seep wetlan | d located in a swale. | | | |
| | | | | | | | |
| | | | | | | | |

| Wetland Hydrology Indicate | 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) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) | ants (B14) Sparsely Vegetated Concave Surfa de Odor (C1) Drainage Patterns (B10) spheres on Living Roots (C3) Moss Trim Lines (B16) duced Iron (C4) Dry-Season Water Table (C2) duction in Tilled Soils (C6) Crayfish Burrows (C8) ace (C7) Saturation Visible on Aerial Imager | | |
| Iron Deposits (B5) | | Geomorphic Position (D2) | | |
| Inundation Visible on Ae Water-Stained Leaves (E Aquatic Fauna (B13) | | | | Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | | | | |
| Surface Water Present? | Yes No _ | Depth (inches): | | |
| Water Table Present? | | Depth (inches): | | |
| Saturation Present? (includes capillary fringe) | Yes No _ | Depth (inches): | Wetland I | Hydrology Present? Yes No |
| | eam gauge, monito | ring well, aerial photos, previous inspec | ctions), if ava | ailable: |
| Remarks: no hydrology indicators prese | nt | | | |

Sampling Point: wpoa415_u

| · · · · · | <u></u> | <u> </u> | P / | |
|---------------------------------------------------------|----------|---------------|-----------------------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | Absolute | Dominant In | | Dominance Test worksheet: |
| | 20 | | <u>Status</u> FACU | Number of Dominant Species |
| 1. Fagus grandifolia | | Yes | | That Are OBL, FACW, or FAC:3 (A) |
| _{2.} 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 |
| _{5.} Magnolia acuminata | 10 | No | FACU | That Are OBL, FACW, or FAC: 42.85714285 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| 7 | 70 | · | | Total % Cover of: Multiply by: |
| | : | = Total Cover | | |
| 50% of total cover: 35 | 20% of | total cover: | 14 | OBL species $x = x = -$ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =0 |
| 1. Fagus grandifolia | 15 | Yes | FACU | FAC species 31 x 3 = 93 |
| | | | | 00 000 |
| 2. Betula alleghaniensis | 6 | Yes | FAC | FACU species $\frac{62}{0}$ x 4 = $\frac{520}{0}$ |
| _{3.} Betula lenta | 4 | No | FACU | UPL species x 5 = |
| 4. Acer pensylvanicum | 2 | No | FACU | Column Totals:113 (A)421 (B) |
| | | | | () () |
| 5 | <u> </u> | | | Prevalence Index = $B/A = $ 3.72 |
| 6 | | <u> </u> | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9 | | · | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 27 | = Total Cover | | |
| 50% of total cover: <u>13.5</u> | | total cover: | 5.4 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | | | data in Remarks or on a separate sheet) |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Maianthemum canadense | 10 | Yes | FAC | |
| 2. Podophyllum peltatum | 4 | Yes | FACU | |
| 3. Anemone quinquefolia | 2 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Anemone quinqueiona | | | TACO | be present, unless disturbed or problematic. |
| 4 | | · | | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | <i>.</i> | | 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 |
| | 16 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 8 | | total cover: | | |
| | 20% 01 | total cover. | 0.2 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. ^{none} | 0 | | | |
| 2. | | | | |
| | | | | |
| 3 | <u> </u> | | | |
| 4 | | <u> </u> | | Hydrophytic |
| 5 | | | | Vegetation |
| ·· | _ | | | Present? Yes No |
| | | = Total Cover | <u> </u> | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
| | | | | |

| Profile Desc | cription: (Describe t | o the dept | n needed to docun | nent the in | dicator o | or confirm | the absence of ind | cators.) | |
|------------------------|-------------------------------|-------------|--------------------|--------------------|-------------------|-----------------------|--------------------------------|-----------------------|-----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | 3 |
| 0-2 | 5YR 2.5/2 | 100 | | | | | L | | |
| 2-12 | 5YR 3/3 | 100 | | | | | SCL | | |
| 12-18 | 5YR 4/4 | 100 | | | | | SCL | | |
| | | | | | | · | | | |
| | | | | | | · | | | |
| | | | | | | | | | |
| | | · | | | | · | | | |
| | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM=F | Reduced Matrix, MS | S=Masked S | Sand Gra | iins. | ² Location: PL=Pore | Lining, M=Matrix | x. |
| Hydric Soil | Indicators: | | | | | | Indicators for | r Problematic H | lydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 cm Mu | ck (A10) (MLRA | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surface | e (S8) (M | LRA 147, ⁻ | 148) Coast P | airie Redox (A16 | 6) |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | (MLR | A 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | 2) | | Piedmor | t Floodplain Soil | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Mat | | | | (MLR | A 136, 147) | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark S | Surface (F6 | 6) | | Very Sh | llow Dark Surfac | ce (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface (| (F7) | | Other (E | xplain in Remark | (S) |
| Thick D | ark Surface (A12) | | Redox Depre | ssions (F8) |) | | | | |
| Sandy M | /lucky Mineral (S1) (L | RR N, | Iron-Mangane | ese Masses | s (F12) (L | .RR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | |
| Sandy C | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) (N | /LRA 13 | 6, 122) | ³ Indicators | of hydrophytic ve | egetation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain So | ils (F19) | (MLRA 148 | wetland h | /drology must be | e present, |
| Stripped | Matrix (S6) | | Red Parent M | Aaterial (F2 | 1) (MLR | A 127, 147) | unless dis | turbed or proble | matic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: no | ne | | | | | | | | |
| Depth (in | | | | | | | Hydric Soil Prese | nt? Yes | No |
| Remarks: | | | | | | | | | |



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, Range: No PLSS in this are | ea | | | | | |
| Landform (hillslope, terrace, etc.): draw | Local relief (concave, convex, none): <u>concave</u> | Slope (%): <u>4</u> | | | | | |
| Subregion (LRR or MLRA): N Lat: 38.3779329 | 9 Long: -80.08779091 | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | NWI classi | fication: PEM | | | | | |
| Are climatic / hydrologic conditions on the site typical for this time of | i year? Yes No (If no, explain in | Remarks.) | | | | | |
| Are Vegetation, Soil, or Hydrology significar | ntly disturbed? Are "Normal Circumstances" | " present? Yes 🖌 No | | | | | |
| Are Vegetation, Soil, or Hydrology naturally | 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 🖌 | 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) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | 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): (includes capillary fringe) Depth (inches): 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

| , , , | | • • | P 4 | |
|---------------------------------------------------------|----------------|--------------|--------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | Absolute | Dominant I | | Dominance Test worksheet: |
| | <u>% Cover</u> | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | | | |
| 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 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| | | | 0 | OBL species <u>45</u> x 1 = <u>45</u> |
| 50% of total cover: 0 | 20% of | total cover: | 0 | <u> </u> |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species 5 x 2 =10 |
| none | 0 | | | FAC species $35 \times 3 = 105$ |
| 1. <u>""""</u> | 0 | | | |
| 2 | | | | FACU species x 4 = |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | 85 160 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 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 ≤3.0 ¹ |
| | 0 | = Total Cove | r | |
| 50% of total cover:0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Carex scabrata | 20 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Ranunculus acris | 20 | Yes | FAC | |
| _{3.} Glyceria striata | 20 | Yes | OBL | ¹ 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 offata. |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Veratrum viride | 5 | No | FACW | |
| 7 Chelone glabra | 5 | No | OBL | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| 0 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | |
| 11 | 05 | | | 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 | 20% of | total cover: | 17 | |
| | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1. none | 0 | | | |
| | | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | _ | Tatal | | Present? Yes V No |
| | | = Total Cove | • | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | hoot) | | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Profile Des | cription: (Describe to | o the dep | th needed to docu | ment the | indicator | or confirm | the absence | e of indicators.) |
|------------------------|--------------------------------------------------|-----------|---------------------------|-------------|-------------------|------------------|--------------------------|-----------------------------------------------------|
| Depth | Matrix | | | x Feature | s | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | 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" |
| | | | | | · | | | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location: F | PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indic | ators for Problematic Hydric Soils ³ : |
| Histoso | (A1) | | Dark Surface | e (S7) | | | 2 | 2 cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | 148) (| Coast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | • | | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | F | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Ma Redox Dark | . , | | | , | (MLRA 136, 147) /ery Shallow Dark Surface (TF12) |
| | uck (A10) (LRR N) d Below Dark Surface | (Δ11) | Redox Dark Depleted Da | | , | | | Other (Explain in Remarks) |
| · | ark Surface (A12) | (411) | Redox Depre | | . , | | _`` | |
| | Aucky Mineral (S1) (LI | RR N. | Iron-Mangan | | , | LRR N. | | |
| - | A 147, 148) | , | MLRA 13 | | · / · | , | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) | (MLRA 13 | 6, 122) | ³ 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 I | Material (F | 21) (MLR | A 127, 147 | ') ur | less disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: <u>no</u> | one | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soi | l Present? Yes 🖌 No |
| Remarks: | | | | | | | 1 | |
| | | | | | | | | |



Wetland data point WPOA416e_w facing north



Wetland data point WPOA416e_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | Sampling Date: 6/6/2016 |
|-------------------------------------------------------------------|-------------------------|--------------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa416_u |
| Investigator(s): GB, KO | Section, Township | o, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): <u>slope</u> | | , convex, none): <u>none</u> | Slope (%): <u>30</u> |
| Subregion (LRR or MLRA): N Lat: 38.3 | 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 this | s time of year? Yes | No (If no, explain in I | 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 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 | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------|--------------------|---------------------------------------|-----|----|
| Remarks: | | | | | |
| Upland data point taken on slope above | e a saturated PE | EM wetland located | 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) |
| Primary Indicators (minimum of one is required; check all that apply) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) Aquatic Fauna (B13) | Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u>'</u> Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No 🗸 |
| (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| | |

Sampling Point: wpoa416_u

| · · · · · · · · · · · · · · · · | Absolute | Dominant Ir | 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, FACW, or FAC: 3 (A) |
| 2. Acer saccharum | 25 | Yes | FACU | |
| 3. Betula alleghaniensis | 15 | Yes | FAC | Total Number of Dominant |
| | 5 | No | FACW | Species Across All Strata: o (B) |
| 4. Fraxinus pennsylvanica | | | TACI | 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 x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $5 \times 2 = 10$ |
| | 15 | Yes | FACU | FAC species 35 x 3 = 105 |
| 2. Hamamelis virginiana | 10 | Yes | FACU | FACU species 95 x 4 = 380 |
| | 4 | · | | 0 |
| 3. <u>Acer pensylvanicum</u> | | No | FACU | $\begin{array}{c} \text{UPL species} 0 x \ 5 = 0 \\ \text{Olympical} 135 (1) 495 (2) \\ \text{Olympical} 135 (3) 495 (3) \\ \text{Olympical} 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) 135 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)$ |
| 4. Magnolia acuminata | 3 | No | FACU | Column Totals: (A) (B) |
| 5. Acer saccharum | 3 | No | FACU | Prevalence Index = $B/A = 3.66$ |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | - <u> </u> | | 2 - Dominance Test is >50% |
| 9 | 35 | - <u> </u> | | 3 - Prevalence Index is ≤3.0 ¹ |
| 17.5 | | = Total Cover | 7 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:17.5 | 20% of | f total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Viola sagittata | 12 | Yes | FAC | |
| 2. Maianthemum canadense | 5 | Yes | FAC | 1 |
| 3. Anemone quinquefolia | 5 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| ₄ Viola rotundifolia | 3 | No | FAC | be present, unless disturbed or problematic. |
| " | | - <u> </u> | | 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 | | | | m) tall. |
| 11 | | | | |
| | 25 | Total Caura | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 12.5 | | = Total Cover total cover: | _ | or size, and woody plants less than 5.20 it tall. |
| | 20 % 0 | | | Woody vine - All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1 | 0 | | | |
| 2 | | · | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic Vegetation |
| <u> </u> | - | = Total Cover | | Present? Yes No V |
| 50% of total cover: 0 | | | 0 | |
| | | f total cover: | | |
| Remarks: (Include photo numbers here or on a separate si | heet.) | | | |
| | | | | |
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| Profile Desc | cription: (Describe t | o the dept | n needed to docun | nent the in | dicator o | or confirm | the absence | of indicato | ors.) | |
|------------------------|-------------------------------|-------------|--------------------|--------------|-------------------|-----------------------|--------------------------|---------------|--------------------|----------------------------|
| Depth | Matrix | | | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | 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 | I | |
| | | <u> </u> | | | | | | | | |
| | | · | | | | · | | | | |
| | | · | | | | · | | | | |
| <u> </u> | | · | | | | · | | | | |
| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM=I | Reduced Matrix, MS | S=Masked | Sand Gra | iins. | ² Location: P | L=Pore Linii | ng, M=Matrix | |
| Hydric Soil | Indicators: | | | | | | Indica | ators for Pr | oblematic H | ydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A | 10) (MLRA ' | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | e (S8) (M | LRA 147, ⁻ | 148) C | Coast Prairie | Redox (A16) | 1 |
| Black H | istic (A3) | | Thin Dark Su | | | 47, 148) | | (MLRA 14 | | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | 2) | | P | Piedmont Flo | odplain Soils | (F19) |
| Stratifie | d Layers (A5) | | Depleted Mat | rix (F3) | | | | (MLRA 13 | | |
| | uck (A10) (LRR N) | | Redox Dark S | (| , | | | • | Dark Surface | · / |
| · | d Below Dark Surface | e (A11) | Depleted Dar | | | | C | Other (Explai | n in Remarks | 5) |
| | ark Surface (A12) | | Redox Depre | | , | | | | | |
| | /lucky Mineral (S1) (L | RR N, | Iron-Mangan | | s (F12) (l | .RR N, | | | | |
| | A 147, 148) | | MLRA 13 | | | | 2 | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | | | | /drophytic ve | |
| | Redox (S5) | | Piedmont Flo | • | . , | • | • | • | logy must be | • |
| | Matrix (S6) | | Red Parent N | laterial (F2 | 21) (MLR | A 127, 147) | un | less disturb | ed or problem | natic. |
| | Layer (if observed): | | | | | | | | | |
| Type: no | ine | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil | Present? | Yes | No <u> /</u> |
| Remarks: | | | | | | | | | | |



Upland data point WPOA416_u facing south



Upland data point WPOA416_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahonta | s 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 area | | | | | | |
| Landform (hillslope, terrace, etc.): road cut | Local relief (concave, conve | ex, none): <u>none</u> | Slope (%): <u>60</u> | | | | |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.371</u> | | | | | | | |
| Soil Map Unit Name: | | NWI classific | cation: PEM | | | | |
| Are climatic / hydrologic conditions on the site typical for this tir | | | | | | | |
| Are Vegetation, Soil, or Hydrology sign | ificantly disturbed? Are "N | Jormal Circumstances" | present? Yes 🖌 No | | | | |
| Are Vegetation, Soil, or Hydrology natu | rally problematic? (If nee | eded, explain any answe | ers in Remarks.) | | | | |
| SUMMARY OF FINDINGS – Attach site map sh | owing sampling point lo | cations, transects | s, important features, etc. | | | | |
| Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No | is the Sampleu A | | Νο | | | | |
| Wetland Hydrology Present? Yes <u>V</u> No | | 1: ICS | | | | | |

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) | | | |
| | 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>✓</u> No Depth (inches): 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u>V</u> No | | | |
| | | | | |

Sampling Point: wpoa418e_w

| | Δι | bsolute | Dominant I | ndicator | Dominance Test worksheet: |
|-------------------------------------------------|----------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | Species? | | |
| 1 Ulmus rubra | | 5 | Yes | FAC | Number of Dominant Species |
| 1. United Tubra | | 0 | 165 | | That Are OBL, FACW, or FAC: 5 (A) |
| 2 | | | | | |
| | | | | | Total Number of Dominant |
| 3 | | | · | | Species Across All Strata: 0 (B) |
| 4 | | | | | |
| | | | · | | Percent of Dominant Species |
| 5 | | | · | | That Are OBL, FACW, or FAC: 83.33333333 (A/B) |
| 6 | | | | | |
| | | | | | Prevalence Index worksheet: |
| 7 | | - | · | | Total % Cover of: Multiply by: |
| | | 5 | = Total Cove | r | |
| 50% of total cove | er 2.5 | 20% of | total cover: | 1 | OBL species X 1 = 15 |
| 15 | | 20 /0 01 | total cover. | | 25 50 |
| Sapling/Shrub Stratum (Plot size: |) | | | | FACW species 25 $x = 50$ |
| 1. Sambucus racemosa | | 3 | Yes | FACU | FAC species 55 x 3 = 165 |
| | | | · | | FACU species3 x 4 =12 |
| 2 | | | · | | |
| 3 | | | | | UPL species x 5 = |
| | | | | | Column Totals:98 (A)242 (B) |
| 4 | | | · | | |
| 5 | | | | | 2.16 |
| | | | | | Prevalence Index = B/A =2.46 |
| 6 | | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | | |
| | | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | · | | ✓ 2 - Dominance Test is >50% |
| 9. | | | | | |
| ·· | · | 3 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | — | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cove | er: <u>1.5</u> | 20% of | total cover: | 0.6 | |
| Horb Stratum (Plot size: 5) | | | | | data in Remarks or on a separate sheet) |
| | | 45 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Micranthes micranthidifolia | | 15 | Yes | OBL | |
| _{2.} Laportea canadensis | | 15 | Yes | FAC | |
| | | - | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Verbesina alternifolia | | 15 | Yes | FAC | be present, unless disturbed or problematic. |
| 4. Impatiens capensis | | 15 | Yes | FACW | |
| •• | | - | | | Definitions of Four Vegetation Strata: |
| _{5.} Poa sylvestris | | 10 | No | FACW | |
| 6. Monarda didyma | | 10 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | - | | | more in diameter at breast height (DBH), regardless of |
| 7 _. Carex amphibola | | 5 | No | FAC | height. |
| 8. Ranunculus acris | | 5 | No | FAC | |
| 0 | | - | · | | 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. |
| 10 | | | · | | |
| 11 | | | . <u> </u> | | Herb – All herbaceous (non-woody) plants, regardless |
| | | 90 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| | ar 45 | | | | |
| 50% of total cove | er: <u>+5</u> | 20% of | total cover: | 10 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30 |) | | | | height. |
| 1 none | _ / | 0 | | | |
| 1 | | U | · | | |
| 2 | | | | | |
| | | | · | | |
| 3 | | | · | | |
| 4 | | | | | |
| | | | | | Hydrophytic |
| 5 | | | · | | Vegetation |
| | | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cove | | | total cover: | <u> </u> | |
| | | | | | |
| Remarks: (Include photo numbers here or on a se | eparate she | et.) | | | |
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| Depth | cription: (Describe t Matrix | o the dep | | ment the interview of the ment | | or confirm | n the absence | e of indicators.) | | |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| (inches) | Color (moist) | % | Color (moist) | <u>x reature</u> % | s Type ¹ | Loc ² | Texture | Remarks | | |
| 0-5 | 5YR 3/2 | 95 | 7.5YR 4/6 | 5 | C | M | CL | rock at 5" | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | concentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Masked | d Sand Gra | ains. | | PL=Pore Lining, M=Matrix. | | |
| Black H Hydroge Stratifie 2 cm M Deplete Thick D | | | Dark Surface Polyvalue Be Thin Dark Surface Loamy Gleye Depleted Ma ✓ Redox Dark Depleted Da Redox Depresent Iron-Mangar | elow Surfa urface (S9 ed Matrix (ttrix (F3) Surface (F rk Surface essions (F |) (MLRA 1 (F2) (F6) (F7) 8) | 47, 148) | | cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) | | |
| MLR Sandy G Sandy F Stripped Restrictive | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed): | <u> </u> | Itol=Mangai MLRA 13 Umbric Surfa Piedmont Flo | 6 6) ace (F13) podplain S | (MLRA 13 ioils (F19) | 6, 122) (MLRA 14 | 18) w | dicators of hydrophytic vegetation and etland hydrology must be present, nless disturbed or problematic. | | |
| Type: <u>ro</u> Depth (in | | | | | | | Hydric Soi | il Present? Yes 🖍 No | | |
| Remarks: | | | | | | | | | | |



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): <u>GB, KO</u> | Section, Townsh | ip, 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: 38.3 | 37169498 | _ Long: <u>-80.08643372</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this | s time of year? Yes | No (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrologys | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology r | naturally 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 | | <u> イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ</u> | Is the Sampled Area within a Wetland? | Yes | No | <u>v</u> |
|---------------------------------------------------------------------------------------|-------------------|---------|-----------------------------------------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |
| Upland data point taken on a steep rock | ky slope for a sa | turated | I PEM seep v | vetland. | | | |
| | | | | | | | |
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| | | | | | | | |

| 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 Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Se Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) | Geomorphic Position (D2) Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) Aquatic Fauna (B13) | Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| | |

Sampling Point: wpoa418_u

| , | Absolute | Dominant I | Indicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|-----------|--------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | | Status | |
| Acer saccharum | 35 | Yes | FACU | Number of Dominant Species |
| 2. Tilia americana | 25 | Yes | FACU | That Are OBL, FACW, or FAC: (A) |
| | 10 | | FACU | Total Number of Dominant |
| 3. Carya glabra | | No | | Species Across All Strata: 4 (B) |
| 4. Prunus serotina | 5 | No | FACU | |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: ²⁵ (A/B) |
| 6 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | 75 | | | Total % Cover of: Multiply by: |
| 07.0 | | = Total Cove | er 15 | $\frac{1}{\text{OBL species}} = \frac{5}{x + 1} = \frac{5}{x + 1}$ |
| 50% of total cover:37.5 | 20% of | total cover: | 15 | 5 10 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x 2 = 400$ |
| _{1.} Fagus grandifolia | 15 | Yes | FACU | FAC species $x_3 = $ |
| _{2.} Tilia americana | 5 | No | FACU | FACU species x 4 = 400 |
| 3. Acer saccharum | 5 | No | FACU | UPL species x 5 = |
| 3 4. Betula alleghaniensis | 5 | No | FAC | Column Totals:(A)(B) |
| | | | 17.0 | |
| 5 | | | | Prevalence Index = $B/A = 3.5$ |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | 20 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 45 | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:15 | 20% of | total cover: | 6 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | · · · · · · · · · · · · · · · · · · · |
| _{1.} Laportea canadensis | 50 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Micranthes micranthidifolia | 5 | No | OBL | |
| 3. Poa sylvestris | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| | 5 | | | be present, unless disturbed or problematic. |
| 4. Ranunculus acris | 5 | No | FAC | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | | | hoight |
| 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 |
| | 65 | = Total Cove | er | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 32.5 | | total cover: | | |
| Woody Vine Stratum (Plot size: 30) | | - | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| | | <u> </u> | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Hydrophytic Vegetation |
| | | = Total Cove | | Present? Yes No |
| 50% of total cover: 0 | | total cover: | | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe t | o the dept | h needed to docur | nent the ind | licator o | or confirm | the absence | of indicators.) |
|------------------------|--------------------------|-------------|--------------------|----------------------|-------------------|------------------|------------------|---------------------------------------------------|
| Depth | Matrix | | | x Features | 1 | . 2 | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-5 | 5YR 3/2 | 100 | | | | | CL | |
| 5-9 | 5YR 3/3 | 100 | | | | | CL | rock at 9" |
| . <u> </u> | | | | | | | | |
| | | | | | | | | |
| | | | | <u> </u> | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM=l | Reduced Matrix, MS | S=Masked S | and Gra | ins. | | L=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indica | ators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surface | (S8) (M | LRA 147, | 148) <u> </u> | Coast Prairie Redox (A16) |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) (I | MLRA 1 | 47, 148) | | (MLRA 147, 148) |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F2 | 2) | | P | viedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface (F6) | | | V | ery Shallow Dark Surface (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface (F | -7) | | C | Other (Explain in Remarks) |
| Thick Da | ark Surface (A12) | | Redox Depre | ssions (F8) | | | | |
| Sandy M | /lucky Mineral (S1) (L | RR N, | Iron-Mangan | ese Masses | (F12) (L | .RR N, | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | |
| Sandy C | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) (M I | LRA 136 | 6, 122) | ³ Ind | licators of hydrophytic vegetation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain Soil | s (F19) (| MLRA 148 | B) we | etland hydrology must be present, |
| Stripped | Matrix (S6) | | Red Parent M | Aaterial (F21 |) (MLRA | 127, 147 |) un | less disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: ro | ck | | | | | | | |
| Depth (in | | | | | | | Hydric Soil | Present? Yes No 🖌 |
| Remarks: | | | | | | | | |



Upland data point WPOA418_u facing east



Upland data point WPOA418_u facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahon | tas County | _ Sampling Date: <u>3/17/2016</u> |
|----------------------------------------------------------------------|----------------------------|---------------------------|-----------------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc105f_w |
| Investigator(s): Team C | Section, Township, Ra | ange: No PLSS in this are | |
| Landform (hillslope, terrace, etc.): Seepage wetland | Local relief (concave, con | | |
| Subregion (LRR or MLRA): N Lat: 38.365 | 52784 Lor | ng: <u>-80.06467784</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: None |
| Are climatic / hydrologic conditions on the site typical for this ti | me of year? Yes 🗹 No _ | (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology sigr | nificantly disturbed? Are | "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nate | urally problematic? (If n | eeded, explain any answ | vers in Remarks.) |
| | owing compling point | lagationa transpot | a important factures ato |

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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|----------------|---------------------------------------|-----|----|
| Remarks: | | | | | | |
| PFO wetland headwater of intermittent s | tream. | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Primary Indicators (minimum of one is requ | red; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B Water-Stained Leaves (B9) Aquatic Fauna (B13) | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks) | Dry-Season Water Table (C2) |
| Field Observations: | | |
| Surface Water Present?YesWater Table Present?YesSaturation Present?Yes(includes capillary fringe) | No ✓ Depth (inches): 3 No Depth (inches): 3 No Depth (inches): 0 onitoring well, aerial photos, previous inspection | Wetland Hydrology Present? Yes <u>Y</u> No ons), if available: |
| Remarks: Wetland hydrology indicators present | | |
| | | |

Sampling Point: wpoc105f_w

| , | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | % Cover | | Status | Number of Dominant Species |
| 1. Acer rubrum | 50 | Yes | FAC | That Are OBL, FACW, or FAC:4 (A) |
| 2. Betula lenta | 10 | No | FACU | |
| 3. Quercus rubra | 10 | No | FACU | Total Number of Dominant Species Across All Strata: 4 (B) |
| 4 | | | | |
| 5 | | · | | Percent of Dominant Species |
| | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | · | · | | Prevalence Index worksheet: |
| 7 | 70 | | | Total % Cover of: Multiply by: |
| 500/ // | | = Total Cover | 14 | OBL species 0 x 1 = 0 |
| 50% of total cover: <u>35</u> | 20% 01 | f total cover: | | FACW species $\frac{85}{x^2}$ $x^2 = \frac{170}{x^2}$ |
| Sapling/Shrub Stratum (Plot size:) | | | | 50 150 |
| 1 | | · | | FAC species $x_3 = 0$ |
| 2 | | | | FACU species $x 4 = 0$ |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals: <u>155</u> (A) <u>400</u> (B) |
| 5 | | | | |
| 6 | | | <u> </u> | Prevalence Index = B/A =2.58 |
| | | | <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | · | · | <u> </u> | ✓ 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | f total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Osmundastrum cinnamomeum | 40 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Viola cucullata | 25 | Yes | FACW | 1 |
| 3. Onoclea sensibilis | 20 | Yes | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4 | | | | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | <u> </u> | 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 |
| | 85 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 42. | 5 20% of | f total cover: | 17 | We should a Allow should be made to the solo of the |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| 1 | | | | Toight. |
| 2 | | | | |
| | | | | |
| 3 | | | | |
| 4 | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | | = Total Cover | | Present? Yes Vo No |
| 50% of total cover:0 | 20% of | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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| Profile Des | cription: (Describe t | o the de | pth needed to docur | nent the i | indicator | or confirm | n the absence | of indicators.) |
|----------------|---------------------------------------------|------------------|-----------------------------|------------|-------------------|------------|-------------------|--------------------------------------------------|
| Depth | Matrix | | | x Feature | | | | |
| (inches) | Color (moist) | | Color (moist) | | Type ¹ | | <u>Texture</u> | Remarks |
| 0-8 | 10 YR 4/2 | 95 | 10 YR 4/6 | 5 | С | PL/M | SL | |
| 8-18 | 2.5 Y 5/1 | 95 | 2.5 Y 5/6 | 5 | С | PL/M | SCL | |
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| 1 | · | | · | | | · | | |
| | Concentration, D=Depl | etion, RN | I=Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | | =Pore Lining, M=Matrix. |
| - | Indicators: | | | | | | | tors for Problematic Hydric Soils ³ : |
| Histoso | () | | Dark Surface | . , | | | | cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | | past Prairie Redox (A16) |
| | listic (A3) | | Thin Dark Su | | | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | | edmont Floodplain Soils (F19) |
| | d Layers (A5) | | ✓ Depleted Ma | • • | -0) | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | (111) | Redox Dark | | , | | | ery Shallow Dark Surface (TF12) |
| - | ed Below Dark Surface Park Surface (A12) | (ATT) | Depleted Dat Redox Depre | | | | 0 | ther (Explain in Remarks) |
| | Mucky Mineral (S1) (L | | Iron-Mangan | | | | | |
| - | A 147, 148) | іхіх іх , | MLRA 13 | | (112) | LIXIX IN, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | • | (MI RA 13 | 6 122) | ³ Indi | cators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | · , | • | | | tland hydrology must be present, |
| - | d Matrix (S6) | | Red Parent M | | | | | ess disturbed or problematic. |
| | Layer (if observed): | | | (| | , | | |
| Type: | , , , , , , , , , , , , , , , , , , , | | | | | | | |
| Depth (ir | (choc): | | | | | | Hydric Soil | Present? Yes 🖌 No |
| | | | | | | | Tryunc 3011 | |
| Remarks: | | | | | | | | |
| Hydric soil pr | | | | | | | | |



Photo 1 Wetland data point WPOC105f_w facing northeast



Photo 2 Wetland data point WPOC105f_w facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | _ Sampling Date: 3/17/2016 |
|----------------------------------------------------------------------|-----------------------|----------------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc105_u |
| Investigator(s): Team C | Section, Townsł | hip, Range: <u>No PLSS in this are</u> | а |
| Landform (hillslope, terrace, etc.): Hill slope | | ve, convex, none): <u>none</u> | • |
| Subregion (LRR or MLRA): N Lat: 38.36 | 555157 | Long: <u>-80.06441519</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifie | cation: None |
| Are climatic / hydrologic conditions on the site typical for this ti | ime of year? Yes | No (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology sign | nificantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nat | urally 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 | v |
|---------------------------------------------------------------------------------------|-------------------|----------------|---------------------------------------|-----|----|---|
| Remarks: | | | | | | |

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is | s 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 Imag | ery (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): | |
| | | |
| | No 🖌 Depth (inches): | |
| Water Table Present?Yes _Saturation Present?Yes _ | | Wetland Hydrology Present? Yes No |
| Water Table Present?Yes _Saturation Present?Yes _(includes capillary fringe) | No <u> </u> Depth (inches): | , , , |
| Water Table Present?Yes _Saturation Present?Yes _(includes capillary fringe) | No ✔ Depth (inches): No ✔ Depth (inches): | , , , |
| Water Table Present?Yes _Saturation Present?Yes _(includes capillary fringe) | No ✔ Depth (inches): No ✔ Depth (inches): | , , , |
| Water Table Present? Yes _ Saturation Present? Yes _ (includes capillary fringe) | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Pescribe Recorded Data (stream gau Remarks: Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Pescribe Recorded Data (stream gau Remarks: Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Pescribe Recorded Data (stream gau Remarks: Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gau Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gau Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gau Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gau Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Pescribe Recorded Data (stream gau Remarks: Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |
| Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Pescribe Recorded Data (stream gau Remarks: Remarks: | No <u>v</u> Depth (inches): No <u>v</u> Depth (inches): ge, monitoring well, aerial photos, previous inspec | , , , |

Sampling Point: wpoc105_u

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | Status | Number of Dominant Species |
| 1 Fagus grandifolia | 60 | Yes | FACU | That Are OBL, FACW, or FAC: (A) |
| 2. Quercus rubra | 20 | Yes | FACU | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:3 (B) |
| 4 | | | | Demonstrat Demoiser |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B) |
| | | | | |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | 80 | <u> </u> | | Total % Cover of: Multiply by: |
| | | = Total Cove | | |
| 50% of total cover: 40 | 20% of | total cover: | 16 | OBL species $x_1 = \frac{x_1}{2}$ |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 =0 |
| Eagus grandifolia | 50 | Yes | FACU | FAC species $0 	 x 3 = 0$ |
| - 1 <u></u> - | | | | FACU species 130 x 4 = 520 |
| 2 | | | | |
| 3 | | | | 130 520 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | A |
| | | | | Prevalence Index = B/A =4 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 50 | = Total Cove | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover:25 | | total cover: | 10 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree, March relate evolution vince 2 in (7.0 ere) er |
| 6 | | . <u></u> | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 0 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 0 | | total cover: | | |
| 00 | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | · <u> </u> | | Hydrophytic |
| 5 | - | | | Vegetation Present? Yes <u>No</u> |
| | | = Total Cove | ~ | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Des | cription: (Describe to | the depth r | needed to docum | nent the in | dicator o | or confirm | the absence of indicators.) |
|---------------|-------------------------------------------|----------------|-----------------------------|--------------|-------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth | Matrix Redox Features | | | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-18 | 2.5 Y 5/6 | 100 | | | | | CL |
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| 17 | | | durand Marketin Ma | | | · | ² lassetian Di Dava Lisian M. Mataia |
| Hydric Soil | oncentration, D=Deple | etion, RIVI=Re | duced Matrix, Ma | S=IVIASKED | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : |
| | | | | (0-) | | | - |
| Histosol | . , | - | Dark Surface | · · / | | | 2 cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | - | Polyvalue Be | | | | |
| | istic (A3) | - | Thin Dark Su | • • | • | 47, 148) | (MLRA 147, 148) |
| | en Sulfide (A4) | - | Loamy Gleye | | 2) | | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) | - | Depleted Ma | . , | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | (| Redox Dark | · · | , | | Very Shallow Dark Surface (TF12) |
| - | d Below Dark Surface ark Surface (A12) | (ATT) _ | Depleted Dar Redox Depre | | | | Other (Explain in Remarks) |
| | Aucky Mineral (S1) (LI | | Iron-Mangan | • • | , | | |
| | A 147, 148) | λη Ν, <u>-</u> | MLRA 13 | | 5 (F12) (L | -nn n, | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | AL DA 12 | 6 122) | ³ Indicators of hydrophytic vegetation and |
| | Redox (S5) | - | Piedmont Flo | | | | |
| | d Matrix (S6) | - | Red Parent N | • | , , | • | |
| | Layer (if observed): | - | | nateriai (F2 | | 4 127, 147 | j unless disturbed of problematic. |
| | Layer (ii Observeu). | | | | | | |
| Туре: | | | - | | | | |
| Depth (in | ches): | | - | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | |
| No hydrio ooi | Inropont | | | | | | |



Photo 1 Upland data point WPOC105_u facing south



Photo 2 Upland data point WPOC105_u facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Por | cahontas County | _ Sampling Date: 7/21/2016 | | | |
|-------------------------------------------------------------------|-------------------------|------------------------------------------------|----------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe219e_w | | | |
| Investigator(s): CG, AS | Section, Townsh | Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): drainage | | e, convex, none): <u>concave</u> | Slope (%): <u>10</u> | | | |
| Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.3</u> | 34608142 | Long:80.01226509 | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classifi | cation: PEM | | | |
| 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 <u> </u> | Is the Sampled Area within a Wetland? | Yes 🖌 No _ | |
|---------------------------------------------------------------------------------------|--------------|---------------------------------------|------------|--|
| Remarks: | | | | |

| 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 Livin | ng Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) |) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled | Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| | |
| Surface Water Present? Yes 🖌 No Depth (inches): 1 | |
| Surface Water Present? Yes V No Depth (inches): 1 Water Table Present? Yes V No Depth (inches): 0 | |
| Water Table Present? Yes | Wetland Hydrology Present? Yes <u>/</u> No |
| Water Table Present? Yes <u>V</u> No Depth (inches): 0 | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes ✓ No Depth (inches):0 Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |

Sampling Point: wpoe219e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| 1. none | 0 | | Olalao | Number of Dominant Species That Are OBL EACW or EAC: 3 (A) |
| 1. <u>""""</u> | | | | That Are OBL, FACW, or FAC: 3 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | · . <u></u> | | |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | · | | Describer of the description of the |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | Tatal Cause | | Total % Cover of: Multiply by: |
| | | = Total Cove | r O | OBL species 65 x 1 = 65 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 70 140 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =140 |
| 1 Salix interior | 5 | Yes | FACW | FAC species $5 \times 3 = 15$ |
| | | 100 | 17.011 | |
| 2 | | | | FACU species $x 4 = $ |
| | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | 145 240 |
| 4 | | · . <u></u> | | Column Totals: (A) (B) |
| 5 | | | | 4.05 |
| | | | | Prevalence Index = B/A =1.65 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9. | | | | |
| | 5 | = Total Cove | - | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 25 | | | 1 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 2.5 | 20% of | total cover: | <u> </u> | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| , Scirpus atrovirens | 50 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Carex scoparia | 30 | Yes | FACW | 1 |
| 3. Juncus effusus | 20 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Carex vulpinoidea | 15 | No | OBL | be present, unless disturbed or problematic. |
| | 15 | No | | Definitions of Four Vegetation Strata: |
| 5. Vernonia noveboracensis | 15 | No | FACW | J. J |
| 6. Rumex crispus | 5 | No | FAC | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | INU | | more in diameter at breast height (DBH), regardless of |
| 7. Dipsacus laciniatus | 5 | No | FACU | height. |
| 8 | | | | 5 |
| 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. |
| 10 | | · | | |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 140 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 70 | | total cover: | | |
| | 2070.01 | | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| 1. none | 0 | | | |
| | | | | |
| 2 | | · <u> </u> | | |
| 3 | | | | |
| 4. | | | | |
| | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | 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 | heet.) | | | |
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| Profile Des | cription: (Describe to | o the dep | th needed to docur | nent the i | indicator | or confirn | n the absence | of indicators.) |
|------------------------|-------------------------------|------------|---------------------|--------------|-------------------|------------|---------------------------|---------------------------------------------------|
| Depth | Matrix | | | x Feature | 4 | . 2 | _ | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> | Type' | | <u>Texture</u> | Remarks |
| 0-16 | 10YR 4/2 | 90 | 10YR 3/6 | 10 | С | PL | SICL | |
| | | | | | | | | |
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| | | | | | | | | |
| ¹ Type: C=C | Concentration, D=Deple | etion, RM= | =Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | ² Location: Pl | L=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indica | ators for Problematic Hydric Soils ³ : |
| <u> </u> | l (A1) | | Dark Surface | e (S7) | | | 2 | cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfa | ce (S8) (N | ILRA 147, | . 148) C | coast Prairie Redox (A16) |
| Black ⊢ | listic (A3) | | Thin Dark Sι | rface (S9) |) (MLRA 1 | 47, 148) | | (MLRA 147, 148) |
| Hydrog | en Sulfide (A4) | | Loamy Gleye | ed Matrix (| (F2) | | P | iedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | V | ery Shallow Dark Surface (TF12) |
| Deplete | ed Below Dark Surface | (A11) | Depleted Date | | | | 0 | other (Explain in Remarks) |
| | ark Surface (A12) | | Redox Depre | | | | | |
| Sandy I | Mucky Mineral (S1) (Ll | RR N, | Iron-Mangan | ese Mass | es (F12) (| LRR N, | | |
| | A 147, 148) | | MLRA 13 | , | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | . , | • | | | icators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | | | | | tland hydrology must be present, |
| | d Matrix (S6) | | Red Parent N | /laterial (F | 21) (MLR | A 127, 147 | 7) unl | less disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil | Present? Yes <u>V</u> No |
| Remarks: | | | | | | | 1 | |
| | | | | | | | | |
| | | | | | | | | |



Wetland data point wpoe219e_w facing west



Wetland data point wpoe219e_w facing south

| Project/Site: Atlantic Coast Pipeline | | Pocahontas County | Sampling Date: 7/21/2016 | | | |
|-------------------------------------------|---------------------------------------------|------------------------------------------------|---------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe219_u | | | |
| Investigator(s): CG, AS | Section, To | Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): slop | | ncave, convex, none): <u>none</u> | _ | | | |
| Subregion (LRR or MLRA): <u>N</u> | Lat: <u>38.34606474</u> | Long: <u>-80.01212614</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classif | ication: UPL | | | |
| Are climatic / hydrologic conditions on | the site typical for this time of year? Yes | ✓ No (If no, explain in | Remarks.) | | | |
| Are Vegetation, Soil, c | or Hydrology significantly disturbed? | Are "Normal Circumstances" | present? Yes No _ | | | |
| Are Vegetation, Soil, c | or Hydrology naturally 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 | ✓ ✓ ✓ | Is the Sampled Area within a Wetland? | Yes | No | <u>۷</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| | 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 Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled S Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Yes Depth (inches): | |
| Water Table Present? Yes No Yes Depth (inches): | |
| | |
| Saturation Present? Yes No <u>V</u> Depth (inches): (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| | |

Sampling Point: wpoe219_u

| ````` | , | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|--------------------------------|--------------------------|-------------|--------------|------------|-------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: | 30) | | Species? | | |
| , none | , | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (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: 0 (A/B) |
| 6 | | | | | |
| 7. | | | | | Prevalence Index worksheet: |
| · · - | | 0 | = Total Cove | | Total % Cover of: Multiply by: |
| | 50% of total cover: | | total cover: | 0 | OBL species0 x 1 =0 |
| | 4 - | 2078 01 | iolai cover. | | FACW species 15 x 2 = 30 |
| Sapling/Shrub Stratum (Plot si | ize:) | 0 | | | FAC species $\begin{array}{c} 0 \\ x & 3 \end{array} = \begin{array}{c} 0 \\ \end{array}$ |
| 1. none | | 0 | | <u> </u> | 60 340 |
| 2 | | | | | FACU species 45 $x = 75$ |
| 3 | | | | | UPL species x 5 = |
| 4 | | | | | Column Totals: (A) (B) |
| | | | | | |
| 5 | | | | | Prevalence Index = B/A =3.83 |
| 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 Cove | er | |
| | 50% of total cover: | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: | | | - | | data in Remarks or on a separate sheet) |
| 1 Trifolium pratense | / | 30 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Anthoxanthum odoratum | | 20 | Yes | FACU | |
| | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Plantago lanceolata | | 15 | No | UPL | be present, unless disturbed or problematic. |
| _{4.} Poa palustris | | 15 | No | FACW | Definitions of Four Vegetation Strata: |
| 5. Phleum pratense | | 10 | No | FACU | |
| 6 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| _ | | | | | more in diameter at breast height (DBH), regardless of height. |
| 7 | | | | | neight. |
| 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 |
| | | 90 | = Total Cove | er | of size, and woody plants less than 3.28 ft tall. |
| | 50% of total cover: | | total cover: | | |
| Woody Vine Stratum (Plot size | e: 30) | | - | | Woody vine – All woody vines greater than 3.28 ft in |
| 1. none | , | 0 | | | height. |
| | | | | <u> </u> | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | Hydrophytic |
| 5 | | | | | Vegetation |
| | | _ | = Total Cove | ۰r | Present? Yes No V |
| | 50% of total cover: | | total cover: | • | |
| Demostra: (Include photo numb | | | | | |
| Remarks: (Include photo num) | bers here or on a separa | ate sneet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docur | nent the i | ndicator | or confirm | n the absence of indicators.) | |
|------------------------|--------------------------|-------------|-------------------|--------------|---------------------|------------------|-----------------------------------------------------|----------|
| Depth | Matrix | | Redox Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-16 | 10YR 3/2 | 100 | | | | | CL | |
| | | | | | | | | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM=I | Reduced Matrix, M | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric So | ils³: |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| Histic E | pipedon (A2) | | Polyvalue Be | elow Surface | ce (S8) (N | ILRA 147, | , 148) Coast Prairie Redox (A16) | |
| Black H | istic (A3) | | Thin Dark Su | urface (S9) | (MLRA 1 | 47, 148) | (MLRA 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | ed Matrix (| F2) | | Piedmont Floodplain Soils (F19) | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | | Redox Dark | ``` | , | | Very Shallow Dark Surface (TF12) | |
| | d Below Dark Surface | (A11) | Depleted Date | | | | Other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | | , | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | |
| | A 147, 148) | | MLRA 13 | | | | 2 | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | | ³ Indicators of hydrophytic vegetation a | and |
| | Redox (S5) | | Piedmont Flo | • | , , | • | | |
| | d Matrix (S6) | | Red Parent N | Material (F | 21) (MLR. | A 127, 147 | 7) unless disturbed or problematic. | |
| | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric Soil Present? Yes No | V |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Upland data point wpoe219_u facing south



Upland data point wpoe219_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | Sampling Date: 4/14/2016 |
|-----------------------------------------------------------------------|----------------------|-------------------------------------|-----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc109e_w |
| Investigator(s): Team C | Section, Township | , Range: <u>No PLSS</u> in this are | a |
| Landform (hillslope, terrace, etc.): Floodplain | | convex, none): <u>none</u> | • |
| Subregion (LRR or MLRA): N Lat: 38.345 | 54984 | Long: <u>-80.01145776</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| Are climatic / hydrologic conditions on the site typical for this til | me of year? Yes 🔽 M | No (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology sigr | ificantly 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 sh | owing sampling poi | nt locations, transects | 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: Wetland is disturbed due to pasture seed | ling. Wetland is | located within the f | loodplain of SPOC120 and r | receives additional water input from a 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) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Depth (inches): | |
| Water Table Present? Yes <u>V</u> No Depth (inches): 0 | |
| Saturation Present? Yes <u>V</u> No <u>Depth (inches)</u> | Netland Hydrology Present? Yes <u>V</u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspectio | ns), if available: |
| Remarks: Wetland hydrology indicators present | |
| | |
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Sampling Point: wpoc109e_w

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|---------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| / | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: <u>3</u> (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL_EACW_or_EAC: 33.33333333 (A/B) |
| | | | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | · | | |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =90 |
| | | | | FAC species $0 \times 3 = 0$ |
| 1 | | | | 00 260 |
| 2 | | · | | FACU species 90 x 4 = 300 |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals:135 (A)6(B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =3.33 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | · | | 2 - Dominance Test is >50% |
| 9 | 0 | · | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | • • • |
| 1 Phleum pratense | 40 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Trifolium pratense | 40 | Yes | FACU | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex grayi | 35 | Yes | FACW | be present, unless disturbed or problematic. |
| 4. Geranium carolinianum | 20 | No | | Definitions of Four Vegetation Strata: |
| 5. Juncus effusus | 10 | No | FACW | |
| 6. Rosa multiflora | 5 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 Dipsacus fullonum | 5 | No | FACU | more in diameter at breast height (DBH), regardless of |
| | J | | TACU | 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 | 455 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 77.5 | 20% of | total cover: | 31 | Weedwine All weedwines greater than 2.39 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| 1 | | | | noight. |
| 1 | | | | |
| 2 | | · | | |
| 3 | | | | |
| 4 | | | | I hadrow had in |
| 5 | | | | Hydrophytic Vegetation |
| | - | | | Present? Yes No V |
| | | = Total Cover | ~ | |
| 50% of total cover:0 | 20% of | total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
| | | | | |
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| Profile Desc | cription: (Describe t | o the dep | oth needed to docur | ment the | indicator | or confirm | n the absence of ind | icators.) |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth | Matrix | | Redo | x Feature | S | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-6 | 7.5 YR 2.5/2 | 95 | 10 YR 3/6 | 5 | С | PL | SL | |
| 6-18 | 7.5 YR 3/3 | 100 | | | | | SL | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | ² l acetican DI Dese | Lining M Mediu |
| Hydric Soil | oncentration, D=Depl | etion, Rivi | =Reduced Matrix, Ma | 5=IVIaske | a Sand Gr | ains. | ² Location: PL=Pore | or Problematic Hydric Soils ³ : |
| Histosol Histic E Black H Hydroge Stratifie 2 cm Mu Deplete Thick Da | | · · · | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan | elow Surfa Irface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F |) (MLRA 1 (F2) =6) ∋ (F7) :8) | 47, 148) | 2 cm Mu 148) Coast P (MLR Piedmon (MLR Very Sh | ack (A10) (MLRA 147) rairie Redox (A16) A 147, 148) Int Floodplain Soils (F19) A 136, 147) allow Dark Surface (TF12) Explain in Remarks) |
| MLR Sandy C Sandy F Stripped | A 147, 148) Gleyed Matrix (S4) Redox (S5) Matrix (S6) Layer (if observed): | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent N | 6) ace (F13) bodplain S | (MLRA 13 Soils (F19) | 6, 122) (MLRA 14 | 48) wetland h | of hydrophytic vegetation and lydrology must be present, sturbed or problematic. |
| Depth (in | ches): | | | | | | Hydric Soil Prese | nt? Yes 🖌 No |
| Remarks: | | | | | | | | |
| Hydric soil ind | dicators present | | | | | | | |



Photo 1 Wetland data point WPOC109e_w facing south



Photo 2 Wetland data point WPOC109e_w facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | Sampling Date: 4/14/2016 |
|------------------------------------------------------------------|--------------------------|--------------------------------|---------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc109_u |
| Investigator(s): Team C | Section, Township | o, Range: No PLSS in this area | a |
| Landform (hillslope, terrace, etc.): Slight slope | | convex, none): none | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): N Lat: 38. | 34559771 | Long: <u>-80.01158409</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for thi | s time of year? Yes N | No (If no, explain in R | Remarks.) |
| Are Vegetation, Soil, or Hydrologys | significantly disturbed? | Are "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 | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------|----------------|--------------------------------------------------------------------|-----|----|
| Remarks: | | | | | |
| data point within a pasture | | | | | |
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| Wetland Hydrology Indicators: | 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| 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>V</u> Depth (inches): | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp | ections), if available: |
| Remarks: No wetland hydrology indicators present | |

Sampling Point: wpoc109_u

| | Abaaluta | - Dominant Ir | diaatar | Deminence Test werksheet |
|---------------------------------------------------------|----------------------|-------------------------|--------------------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % Cover | Dominant Ir Species? | ndicator Status | Dominance Test worksheet: |
| | <u>% Cover</u> 10 | Yes | FACU | Number of Dominant Species |
| 1. Acer saccharum | | 100 | 17.00 | That Are OBL, FACW, or FAC:0 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Total Number of Dominant Species Across All Strata: ³ (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | · | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | |
| | | • • | | Prevalence Index worksheet: |
| 7 | 10 | · | | Total % Cover of: Multiply by: |
| _ | | = Total Cover | | |
| 50% of total cover: 5 | 20% of | f total cover: | 2 | $OBL species $ $x_1 = $ |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $0 	 x 2 = 0$ |
| | | | | FAC species15 x 3 =45 |
| 1 | | | | 140 560 |
| 2 | | . <u> </u> | | FACU species $x 4 = 0$ |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals:155 (A)605 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =3.9 |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | · · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cover | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% 0 | f total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Phleum pratense | 60 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2 Trifolium pratense | 40 | Yes | FACU | |
| | 15 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 6 | | - <u> </u> | | be present, unless disturbed or problematic. |
| 4. Viola sororia | 15 | No | FAC | Definitions of Four Vegetation Strata: |
| 5. Achillea millefolium | 15 | No | FACU | Definitions of Four Pogetation endation |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | · | | | height. |
| 8 | | | | |
| | | • • | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Harb All harbossous (non woody) plants, regardless |
| | 145 | = Total Cover | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 72.5 | | | | 01 Size, and woody plants less than 5.20 it tail. |
| | <u>20% or</u> | f total cover: | 29 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | - roight |
| | | | | |
| 2 | | | | |
| 3 | | . <u> </u> | | |
| 4 | | | | |
| | | • • | | Hydrophytic |
| 5 | - | | | Vegetation Present? Yes No |
| | | = Total Cover | ~ | Present? Yes No V |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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| Profile Des | cription: (Describe t | o the depth | needed to docun | nent the i | ndicator | or confirm | the absence of indicators.) | |
|---------------|---------------------------------------|-------------|-------------------|--------------|--------------------|------------------|------------------------------------------------------|------------|
| Depth | Matrix | | Redo | x Features | 6 | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-8 | 7.5 YR 3/3 | 100 | | | | | SL | |
| 8-18 | 7.5 YR 3/4 | 100 | | | | | SL SL | |
| | | | | | | | | |
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| | · · · · · · · · · · · · · · · · · · · | | | . <u> </u> | | | | |
| | concentration, D=Deple | etion, RM=F | educed Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | 3 |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils | ' : |
| — Histoso | . , | | Dark Surface | | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | | | | | |
| | listic (A3) | | Thin Dark Su | • • | • | 47, 148) | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | =2) | | Piedmont Floodplain Soils (F19) | |
| | d Layers (A5) | | Depleted Mar | . , | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | <i></i> | Redox Dark | | , | | Very Shallow Dark Surface (TF12) | |
| | d Below Dark Surface | (A11) | Depleted Dar | | | | Other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | | , | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | | ³ Indicators of hydrophytic vegetation an | d |
| | Redox (S5) | | Piedmont Flo | • | • • | • | , , , , , , , , , , , , , , , , , , , , | |
| | d Matrix (S6) | | Red Parent N | laterial (F2 | 21) (MLR | A 127, 147 |) unless disturbed or problematic. | |
| | Layer (if observed): | | | | | | | |
| Туре: | | | _ | | | | | , |
| Depth (ir | nches): | | _ | | | | Hydric Soil Present? Yes No | |
| Remarks: | | | | | | | | |
| No hydrio ooi | l indicators prosont | | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC109_u facing northwest



Photo 2 Upland data point WPOC109_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas County | Sampling Date: 7/15/2016 |
|------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------|
| Applicant/Owner: Dominion | Sta | te: <u>WV</u> Sampling Point: wpoe216e_w |
| Investigator(s): CG, JM | Section, Township, Range: No PLS | S in this area |
| Landform (hillslope, terrace, etc.): | _ Local relief (concave, convex, none): <u>n</u> | |
| Subregion (LRR or MLRA): S Lat: 38.33412 | 129 Long: -80.00388 | 351 Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classification: PEM |
| 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 Circu | mstances" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natural | ly problematic? (If needed, explain | n any answers in Remarks.) |
| | | |

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

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

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

Sampling Point: wpoe216e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------------------------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| 1. none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: ³ (A) |
| | | · | | |
| 2 | | · | | Total Number of Dominant |
| 3 | | . <u></u> | | Species Across All Strata:3 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | · · · · · · · · · · · · · · · · · · · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | . <u> </u> | | |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species 40 x 1 = 40 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $\frac{65}{x 2} = \frac{130}{x}$ |
| Corrigue correligione | 10 | Yes | FAC | FAC species 40 x 3 = 120 |
| 1. Carpinus caroliniana | 10 | 165 | TAC | 0 |
| 2 | | | | FACU species $x 4 = $ |
| 3 | | | | UPL species x 5 =0 |
| | | · · · · · · · · · · · · · · · · · · · | | Column Totals: <u>145</u> (A) <u>290</u> (B) |
| 4 | | · | | (-) |
| 5 | | · | | Prevalence Index = B/A =2 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | ✓ 2 - Dominance Test is >50% |
| 9 | | . <u> </u> | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | 10 | = Total Cove | r | |
| 50% of total cover: 5 | | total cover: | 2 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20/00 | | | data in Remarks or on a separate sheet) |
| | 40 | N | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex prasina | 40 | Yes | OBL | · · · · · · · · · · · · · · · · |
| 2. Microstegium vimineum | 30 | Yes | FAC | 1 |
| 3. Leersia virginica | 20 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4 Viola cucullata | 20 | No | FACW | be present, unless disturbed or problematic. |
| · · · · · · · · · · · · · · · · · · · | | · | | Definitions of Four Vegetation Strata: |
| 5. Impatiens capensis | 20 | No | FACW | |
| _{6.} Onoclea sensibilis | 5 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | - | · | | hoight |
| 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 | | | | |
| | 135 | Tatal O | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 67.5 | | = Total Cove | | or size, and woody plants less than 5.26 it tall. |
| | 20% of | total cover: | 21 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | Ť |
| 2. | | | | |
| | | · | | |
| 3 | | · | | |
| 4 | | . <u></u> | | Hydrophytic |
| 5 | | | | Vegetation |
| | | = Total Cove | r | Present? Yes <u>No</u> |
| 50% of total cover: 0 | | total cover: | • | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe to | the dept | h needed to docur | nent the i | ndicator | or confirm | the absence of | of indicators.) | |
|------------------------|--------------------------|------------|---------------------------------|-------------------|---------------------|------------------|---------------------------|-------------------------|-----------------------------------|
| Depth | Matrix | | Redo | x Features | 3 | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Re | emarks |
| 0-12 | 10YR 4/2 | 90 | 10YR 3/6 | 10 | С | PL | SCL | | |
| | | | | | | | | | |
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| ¹ Tvpe: C=C | oncentration, D=Deple | etion. RM= | Reduced Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL | =Pore Lining, M= | =Matrix. |
| Hydric Soil | | | · · · · | | | | Indicat | tors for Problem | natic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | e (S7) | | | 2 0 | cm Muck (A10) (I | MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | ce (S8) (N | ILRA 147, | | ast Prairie Redo | |
| | istic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | · <u> </u> | (MLRA 147, 148 | 3) |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | | | | Pie | edmont Floodpla | in Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147 |) |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface (F | 6) | | Ve | ry Shallow Dark | Surface (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Date | rk Surface | (F7) | | Ot | her (Explain in R | emarks) |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F8 | 3) | | | | |
| Sandy M | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangan | ese Masse | es (F12) (I | LRR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | |
| Sandy C | Bleyed Matrix (S4) | | Umbric Surfa | ce (F13) (| MLRA 13 | 6, 122) | ³ India | cators of hydroph | ytic vegetation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain So | oils (F19) | (MLRA 14 | 8) wet | land hydrology m | nust be present, |
| Stripped | I Matrix (S6) | | Red Parent N | Aaterial (F | 21) (MLR | A 127, 147 | 7) unle | ess disturbed or p | problematic. |
| | Layer (if observed): | | | | | | | | |
| Type: ro | ck | | | | | | | | |
| | ches): <u>12</u> | | | | | | Hydric Soil I | Present? Yes | No |
| Remarks: | - | | | | | | | | |

Auger refusal at 12 inches.



Wetland data point wpoe216e_w facing east



Wetland data point wpoe216e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | _ Sampling Date: 7/15/2016 |
|------------------------------------------------------------------------|--------------------|-------------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe216_u |
| Investigator(s): CG, JM | Section, Tow | vnship, Range: <u>No</u> PLSS in this are | а |
| Landform (hillslope, terrace, etc.): floodplain | | ncave, convex, none): <u>none</u> | • |
| Subregion (LRR or MLRA): S Lat: 38.3341 | 3753 | Long: <u>-80.00380287</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPL |
| 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 signif | icantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natura | ally 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: | | | | | |

| 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 <u><</u> Depth (inches): | |
| Saturation Present? Yes No 🖌 Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | |

Sampling Point: wpoe216_u

| , , | | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|------------------------------------------------|--------------------|----------|---------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | | Status | |
| Acer saccharum | | 40 | Yes | FACU | Number of Dominant Species That Are OBL_EACW_or_EAC: 2 (A) |
| 2. Betula papyrifera | | 10 | Yes | FACU | That Are OBL, FACW, or FAC: (A) |
| | | | | 1 400 | Total Number of Dominant |
| 3 | | | | | Species Across All Strata: 5 (B) |
| 4 | | | | | \ \ |
| | | | | | Percent of Dominant Species |
| 5 | | | | | That Are OBL, FACW, or FAC: 40 (A/B) |
| 6 | | | | | Desuglassos la desusarbakast. |
| 7 | | | | | Prevalence Index worksheet: |
| | | 50 | = Total Cover | | Total % Cover of:Multiply by: |
| 50% of total cove | ar: 25 | | total cover: | 10 | OBL species 0 x 1 = 0 |
| 15 | JI | 2078.01 | | | FACW species x 2 = 20 |
| Sapling/Shrub Stratum (Plot size: |) | | | | 10 20 |
| 1. Fagus grandifolia | | 30 | Yes | FACU | FAC species $x_3 = 200$ |
| 2 | | | | | FACU species X 4 = |
| | | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | | Column Totals: 100 (A) 370 (B) |
| 4 | | | | | |
| 5 | | | | | Prevalence Index = B/A =3.7 |
| 6 | | | | | |
| | | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | | 2 - Dominance Test is >50% |
| 9 | | | | | |
| | | 30 | = Total Cover | | 3 - Prevalence Index is $\leq 3.0^1$ |
| 50% of total cove | _{-r} . 15 | | total cover: | 6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| - | | 20 % 01 | | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. ^{Viola} blanda | | 10 | Yes | FACW | |
| 2. Microstegium vimineum | | 10 | Yes | FAC | |
| | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | | be present, unless disturbed or problematic. |
| 4 | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | |
| 6 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | | height. |
| 8 | | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | | m) tall. |
| | | | | | |
| 11 | | 20 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 10 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cove | ər: 10 | 20% of | total cover: | 4 | 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 | | | | | Hydrophytic Vegetation |
| | | - | Total Ori | | Present? Yes No |
| | -r· 0 | | = Total Cover | <u> </u> | |
| 50% of total cove | er: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a s | eparate s | neet.) | | | |
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| Profile Desc | cription: (Describe to | o the de | oth needed to docum | nent the i | ndicator | or confirm | the absence of ind | icators.) | |
|------------------------|-------------------------------|-----------|---------------------------------------|-----------------|-------------------|------------------|--------------------------------|------------------------------------|-------------|
| Depth | Matrix | | Redo | x Feature | S | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-12 | 7.5YR 4/3 | 95 | 7.5YR 4/6 | 5 | С | М | SICL | | |
| 12-16 | 10YR 5/2 | 95 | 10YR 5/6 | 5 | С | М | SIC | | |
| | | | | | | | | | |
| | | | | | | <u> </u> | | | |
| | | | | | | · | | | |
| | | | | | | | | | |
| | | | | | | | , | | |
| | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion. RM | =Reduced Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore | e Lining, M=Matrix. | |
| Hydric Soil | | 1 | · · · · · · · · · · · · · · · · · · · | | | | | or Problematic Hy | |
| Histosol | (A1) | | Dark Surface | · · | | | 2 cm M | uck (A10) (MLRA 1 | |
| | pipedon (A2) | | Polyvalue Be | | | | | rairie Redox (A16) | |
| | istic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | • • • | • | 47, 140) | | A 147, 148) nt Floodplain Soils | (E10) |
| | d Layers (A5) | | Depleted Mat | | r <i>z)</i> | | | A 136, 147) | (F19) |
| | uck (A10) (LRR N) | | Redox Dark \$ | , , | 6) | | | allow Dark Surface | (TE12) |
| | d Below Dark Surface | (A11) | Depleted Dar | | , | | | Explain in Remarks | |
| | ark Surface (A12) | (,) | Redox Depre | | . , | | | | / |
| | /ucky Mineral (S1) (LI | RR N. | Iron-Mangan | • | , | RR N. | | | |
| - | A 147, 148) | | MLRA 13 | | · / · | | | | |
| Sandy G | Gleyed Matrix (S4) | | Umbric Surfa | , ce (F13) (| MLRA 13 | 6, 122) | ³ Indicators | of hydrophytic veg | etation and |
| | Redox (S5) | | Piedmont Flo | | • | | | ydrology must be | |
| Stripped | Matrix (S6) | | Red Parent N | Aaterial (F | 21) (MLR | A 127, 147 | ') unless di | sturbed or problem | atic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Prese | nt? Yes | No |
| Remarks: | | | | | | | | | |



Upland data point wpoe216_u facing west



Upland data point wpoe216_u facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | Sampling Date: 7/15/2016 |
|-----------------------------------------------------------------|--------------------------|-----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe217e_w |
| Investigator(s): CG, JM | Section, Townsl | nip, Range: <u>No PLSS in this area</u> | |
| Landform (hillslope, terrace, etc.): floodplain | | re, convex, none): <u>concave</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> . | 33508522 | Long: <u>-80.00257659</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: PEM |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | 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 <u>✓</u> Yes <u>✓</u> Yes <u>✓</u> | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|----------------------------------------------|----------------|---------------------------------------|-------|----|
| Remarks: | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Ves No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective 0 0 | Wetland Hydrology Present? Yes <u>V</u> No tions), if available: |
| Remarks: | |
| | |

Sampling Point: wpoe217e_w

| | Abaaluta | Dominant I | ndiantar | Dominance Test worksheet: |
|---------------------------------------------------------|------------------|---------------------------------------|-------------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % Cover | Species? | | |
| 1_none | 0 | opecies: | Olalus | Number of Dominant Species That Are OBL EACW or EAC: 2 (A) |
| 1. <u>""""</u> | | · | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | | | Demonstrat Deminent Creation |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | - | · | | Prevalence Index worksheet: |
| 7 | | | | |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species X 1 = 30 |
| | 20% of | total cover: | | 50 100 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x = $ |
| 1. none | 0 | | | FAC species $50 	 x 3 = 150$ |
| | | | | FACU species 10 x 4 = 40 |
| 2 | | · | | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals: (A) 320 (B) |
| 4 | | | | |
| 5 | | . <u> </u> | | Prevalence Index = $B/A = 2.28$ |
| 6 | | | | |
| | | · · · · · · · · · · · · · · · · · · · | | Hydrophytic Vegetation Indicators: |
| 7 | - | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 9. | | | | ∠ 2 - Dominance Test is >50% |
| 9 | 0 | · | | ✓ 3 - Prevalence Index is ≤3.0 ¹ |
| | 0 | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| | 50 | Ma a | F 40 | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Microstegium vimineum | 50 | Yes | FAC | |
| 2. Carex gynandra | 30 | Yes | OBL | |
| 3 Viola cucullata | 20 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| · | | · | | be present, unless disturbed or problematic. |
| 4. Persicaria maculosa | 10 | No | FACW | Definitions of Four Vegetation Strata: |
| _{5.} Persicaria pensylvanica | 10 | No | FACW | Deminions of Four Vegetation of ata. |
| | 10 | No | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Impatiens capensis | 10 | No | FACW | more in diameter at breast height (DBH), regardless of |
| 7. Rosa multiflora | 10 | No | FACU | 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 |
| | 140 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 70 | 20% of | total cover: | 28 | |
| | | <u>-</u> | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| | | · | | |
| 3 | | | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | · <u> </u> | | Vegetation |
| | | = Total Cove | | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Profile Des | cription: (Describe to | o the dept | h needed to docur | nent the i | ndicator | or confirm | the absence | of indicators.) |
|------------------------|-------------------------|------------|----------------------------------|-------------------|-------------------|------------------|---------------------------|--------------------------------------------------|
| Depth | Matrix | | Redo | x Features | 6 | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-12 | 10YR 5/1 | 90 | 7.5YR 4/6 | 10 | С | Μ | SCL | |
| | | <u> </u> | | | | | | |
| | | <u> </u> | | | | | · | |
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| | | | | | | | | |
| ¹ Tvpe: C=C | oncentration, D=Deple | etion. RM= | Reduced Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL | _=Pore Lining, M=Matrix. |
| Hydric Soil | | , | , | | | | | tors for Problematic Hydric Soils ³ : |
| Histoso | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | · · · | ce (S8) (N | LRA 147. | | oast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | | | | , | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | • • • | • | , - , | Pi | iedmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mar | | , | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | . , | 6) | | Ve | ery Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Dar | • | , | | | ther (Explain in Remarks) |
| · | ark Surface (A12) | · · · | Redox Depre | ssions (F8 | 3) | | | |
| | /lucky Mineral (S1) (LI | RR N, | Iron-Mangan | | | _RR N, | | |
| MLR | A 147, 148) | | MLRA 13 | | · / · | | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) (| MLRA 13 | 6, 122) | ³ Indi | cators of hydrophytic vegetation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain So | oils (F19) | (MLRA 14 | 8) we | tland hydrology must be present, |
| Stripped | Matrix (S6) | | Red Parent N | Aaterial (F2 | 21) (MLR | A 127, 147 | ') unl | ess disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: ro | ck | | | | | | | |
| | ches): <u>12</u> | | | | | | Hydric Soil | Present? Yes 🖌 No |
| Remarks: | | | | | | | | |

Auger refusal at 12 inches.



Wetland data point wpoe217e_w facing east



Wetland data point wpoe217e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahon | tas County | _ Sampling Date: 7/15/2016 |
|----------------------------------------------------------------------|----------------------------|----------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe217_u |
| Investigator(s): CG, JM | Section, Township, Ra | ange: <u>No PLSS</u> in this are | |
| Landform (hillslope, terrace, etc.): road | Local relief (concave, cor | | Slope (%): <u>1</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33</u> | 503456 Lo | ng: <u>-80.00262936</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPL |
| Are climatic / hydrologic conditions on the site typical for this ti | ime of year? Yes 🔽 No | (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology sign | nificantly disturbed? Are | "Normal Circumstances" | present? Yes No _ |
| Are Vegetation, Soil, or Hydrology nat | urally problematic? (If n | eeded, 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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | <u>v</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| Wetland Hydrology Indicator | 'S: | Secondary Indicators (minimum of two required) | |
|--------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------|-------------------------------------------|
| Primary Indicators (minimum o | f one is required; cl | 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 | 0,0,0 | | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9 | 9) | | 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): | |
| Water Table Present? Saturation Present? (includes capillary fringe) | | Depth (inches): Depth (inches): | Wetland Hydrology Present? Yes No |
| Saturation Present? (includes capillary fringe) | Yes No | | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: | Yes No | Depth (inches): | , , , |

Sampling Point: wpoe217_u

| · · · · | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|------------------------------------------------------------------------------------------------|----------|--------------------------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 0 (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | Decoder on the decourse distance (|
| 7 | | | | Prevalence Index worksheet: |
| | | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover:0 | 20% of | total cover: | 0 | OBL species x 1 = |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 = |
| 1. none | 0 | | | FAC species x 3 = |
| 2 | | | | FACU species x 4 = |
| 3 | | <u></u> | | UPL species x 5 = |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Drevela e a la dece D/A |
| 6 | | | | Prevalence Index = B/A = |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | 0 | = Total Cove | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | 2070 01 | total 00ver | | data in Remarks or on a separate sheet) |
| none | 0 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | · | | |
| 2 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | · | | height. |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 0 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:0 | 20% of | total cover: | 0 | Weedy vine All weedy vince greater than 2.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| 1. <u>none</u> | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic Vegetation |
| | - | = Total Cove | r | Present? Yes <u>No</u> |
| 50% of total cover: 0 | | | ~ | |
| 50% of total cover:0 Remarks: (Include photo numbers here or on a separate s GRAVEL ROAD | 20% of | = Total Cove i total cover: | ~ | |
| | | | | |

| Profile Desc | ription: (Describe to | o the depth | n needed to docun | nent the in | dicator o | or confirm | the absence of inc | licators | 5.) | |
|--------------|--------------------------|-------------|-------------------|-------------|-------------------|------------------|-------------------------------|----------|------------------------------|----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| | oncentration, D=Deple | tion DM_E | Poducod Matrix MS | -Mackad | Sand Gr | nine | ² Location: PL=Por | | M_Motrix | |
| Hydric Soil | | | | | Sanu Gra | an 15. | | U | | vdric Soils ³ : |
| | | | Dark Curfaga | (07) | | | | | | |
| Histosol | (AT) bipedon (A2) | | Dark Surface | · · · | o (SO) /M | | | • | 0) (MLRA [·] | • |
| Black Hi | • • • • | | Thin Dark Su | | · · · | | • | A 147, | |) |
| | n Sulfide (A4) | | Loamy Gleye | • • | • | 47, 140) | • | | dplain Soils | (E10) |
| | d Layers (A5) | | Depleted Mat | | 2) | | | A 136, | | S (F 19) |
| | ick (A10) (LRR N) | | Redox Dark \$ | . , | 3) | | • | | ark Surfac | o (TE12) |
| | d Below Dark Surface | (Δ11) | Depleted Dark | | | | | | in Remarks | |
| | ark Surface (A12) | (////) | Redox Depre | | ` ' | | | | minternaria | 5) |
| | lucky Mineral (S1) (LI | | Iron-Mangan | • | , | RRN | | | | |
| | A 147, 148) | , | MLRA 13 | | o (i i 2) (i | , | | | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | , | MLRA 13 | 6, 122) | ³ Indicators | of hvd | rophytic ve | getation and |
| - | ledox (S5) | | Piedmont Flo | | | | | - | gy must be | - |
| | Matrix (S6) | | Red Parent M | | | | | | or problem | |
| | _ayer (if observed): | | | | | , | , | | | |
| Type: | ,,,,,,,,- | | | | | | | | | |
| Depth (inc | chec): | | | | | | Hydric Soil Prese | nt2 | Yes | No 🖌 |
| | | | | | | | rigune son Plese | , i l f | 163 | |
| Remarks: | | | | | | | | | | |
| GRAVEL RO | 4U | | | | | | | | | |
| | | | | | | | | | | |



Upland data point wpoe217_u facing south



Upland data point wpoe217_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | _ Sampling Date: <u>3/15/2016</u> |
|------------------------------------------------------------------------|-------------------|------------------------------------------|-----------------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc100e_w |
| Investigator(s): | Section, Tov | vnship, Range: <u>No PLSS in this ar</u> | |
| Landform (hillslope, terrace, etc.): Floodplain | | ncave, convex, none): <u>none</u> | • |
| Subregion (LRR or MLRA): S Lat: 38.3337 | 8377 | Long: <u>-79.9966306</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classi | fication: None |
| 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 signifi | 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 sho | wing sampling | g 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: Wetland within floodplain of clover creek. | Vegetation is (| disturbed because t | he area is utilized as a nasture | | |
| weitand within hoodplain of clovel creek. | vegetation is t | | | ·. | |
| | | | | | |

| Wetland Hydrology Indicato | ors: | | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum | of one is required; cl | neck all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (B Aquatic Fauna (B13) | o , (, | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) | Dry-Season Water Table (C2) |
| Field Observations: | | | |
| Surface Water Present? | Yes No | Depth (inches): | |
| Water Table Present? | Yes 🖌 No 🔤 | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) | | Depth (inches):0 | Wetland Hydrology Present? Yes <u>✓</u> No |
| Describe Recorded Data (stre | eam gauge, monitorii | ng well, aerial photos, previous inspec | tions), if available: |
| Remarks: Wetland hydrology indicators p | present | | |

Sampling Point: wpoc100e_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:1 (A) |
| | | | | |
| 2 | | | <u> </u> | Total Number of Dominant |
| 3 | | | | Species Across All Strata:2 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | - <u> </u> | | Desuglasses in desugestable est |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | f total cover: | 0 | OBL species <u>5</u> x 1 = <u>5</u> |
| 15 | 20 % 0 | | | FACW species $5 	 x 2 = 10$ |
| Sapling/Shrub Stratum (Plot size: 13) | | | | 60 190 |
| 1 | | | | FAC species $x_3 = $ |
| 2 | | | | FACU species 40 x 4 = 160 |
| | | | | UPL species0 x 5 =0 |
| 3 | | • <u> </u> | | 110 355 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| | | | | Prevalence Index = B/A =3.22 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | - <u> </u> | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 9. | | | | 2 - Dominance Test is >50% |
| 9 | 0 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | f total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | • • • |
| Panicum virgatum | 60 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Trifolium pratense | 25 | Yes | FACU | |
| | | · | | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Viola pedata | 15 | No | FACU | be present, unless disturbed or problematic. |
| 4. Juncus effusus | 5 | No | FACW | |
| 5. Symplocarpus foetidus | 5 | No | OBL | Definitions of Four Vegetation Strata: |
| 5 | | 110 | OBL | 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. |
| | | · | | 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 | | | | |
| · · · · · | 110 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 55 | 20% of | f total cover: | 22 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | |
| 1 | | | | |
| 2 | | - <u></u> | | |
| 3 | | | | |
| | | | | |
| 4 | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cover | | Present? Yes No V |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | sneet.) | | | |
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| D | • • • • | - | | | | | the absence of i | |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|---------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth (inchoo) | <u>Matrix</u> Color (moist) | % | Color (moist) | <u>x Feature</u> % | es Type ¹ | Loc ² | Texture | Remarks |
| <u>(inches)</u> 0-6 | 10 YR 5/1 | 100 | | 70 | Туре | LUC | C | Remarks |
| 6-18 | 10 YR 5/1 | 97 | 10 YR 5/8 | 3 | С | PL/M | C | |
| | · | | | | · | | | |
| | | | | | | | | |
| | Concentration, D=Deple | etion, RM | | | d Sand Gra | ains. | | ore Lining, M=Matrix. s for Problematic Hydric Soils ³ : |
| Black ⊢ Hydrog Stratifie 2 cm M | Epipedon (A2) distic (A3) en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark | elow Surfa urface (S9 ed Matrix htrix (F3) Surface (l |) (MLRA 1 (F2) F6) | | 148) Coast (Mi Piedn (Mi Very t | Muck (A10) (MLRA 147) t Prairie Redox (A16) LRA 147, 148) nont Floodplain Soils (F19) LRA 136, 147) Shallow Dark Surface (TF12) |
| Thick D Sandy MLR Sandy Sandy | ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | Depleted Da Redox Depro- Iron-Mangar MLRA 13 Umbric Surfa Piedmont Flo Red Parent I | essions (F lese Mass 6) ace (F13) podplain S | 58) ses (F12) (I (MLRA 13 Soils (F19) | 6, 122) (MLRA 14 | ³ Indicato 8) wetland | r (Explain in Remarks) ors of hydrophytic vegetation and d hydrology must be present, disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Pre | esent? Yes 🖌 No |
| Remarks: | | | | | | | 1 | |



Photo 1 Wetland data point WPOC100e_w facing southeast



Photo 2 Wetland data point WPOC100e_w facing northwest

| Project/Site: Atlantic Coast Pipeline | _ City/County: Pocahontas County Sampling Date: 3/15/2016 |
|---------------------------------------------------------------------------|------------------------------------------------------------------------|
| Applicant/Owner: DOMINION | State: <u>WV</u> Sampling Point: <u>wpoc100_u</u> |
| Investigator(s): Team C | _ Section, Township, Range: <u>No PLSS in this area</u> |
| Landform (hillslope, terrace, etc.): Hill slope | .ocal relief (concave, convex, none): <u>none</u> Slope (%): <u>60</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33375933</u> | Long: <u>-79.99668919</u> Datum: WGS 1984 |
| Soil Map Unit Name: | NWI classification: 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 significant | ly disturbed? Are "Normal Circumstances" present? Yes <u>/</u> No |
| Are Vegetation, Soil, or Hydrology naturally p | oroblematic? (If needed, explain any answers in Remarks.) |

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

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

| 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 V Depth (inches): | |
| | Wetland Hydrology Present? Yes No |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No _ Depth (inches): | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |

Sampling Point: wpoc100_u

| | Absolute | Dominant In | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|----------|--------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | Status | Number of Dominant Species |
| 1. Quercus rubra | 40 | Yes | FACU | That Are OBL, FACW, or FAC:1 (A) |
| 2. Betula lenta | 15 | No | FACU | |
| 3. Quercus montana | 15 | No | UPL | Total Number of Dominant |
| | 10 | No | FACU | Species Across All Strata: 4 (B) |
| 4 _. Tsuga canadensis | 10 | | 1400 | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 25 (A/B |
| 6 | | <u> </u> | | |
| 7. | | | | Prevalence Index worksheet: |
| | 80 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover:40 | | total cover: | 16 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =0 |
| 1 Fagus grandifolia | 10 | Yes | FACU | FAC species 10 x 3 = 30 |
| n | | | 17.00 | FACU species $\frac{85}{x4} = \frac{340}{x40}$ |
| 2 | | | <u> </u> | |
| 3 | | | | $\begin{array}{c} \text{UPL species} \\ 110 \end{array} x \text{ 5} = \\ 445 \end{array}$ |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| | | | | Prevalence Index = B/A =4.04 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | · | | 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 10 | = Total Cover | | |
| 50% of total cover: 5 | 20% of | total cover: | 2 | 4 - Morphological Adaptations ¹ (Provide supportin |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1 Athyrium angustum | 10 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Polystichum acrostichoides | 10 | Yes | FACU | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Dominiono en rogenation estatai |
| 6. | | | | Tree - Woody plants, excluding vines, 3 in. (7.6 cm) o |
| | | | | 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 |
| | 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 | | · · | <u> </u> | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Hydrophytic Vegetation |
| ۰ | - | = Total Cover | | Present? Yes No V |
| 50% of total cover: 0 | | | | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | n needed to docur | nent the ir | ndicator o | or confirm | the absence of indicators.) | |
|------------------------|------------------------------|-------------|-------------------|--------------|--------------------|------------------|--------------------------------------------------------|---|
| Depth | Matrix | | Redo | x Features | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-18 | 10 YR 5/4 | 100 | | | | | SCL | |
| | | | | | | | · · · · · · · · · · · · · · · · · · · | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion. RM=F | Reduced Matrix. M | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | | | , | | | | Indicators for Problematic Hydric Soils ³ : | |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | · · / | e (S8) (M | LRA 147, | | |
| | istic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | | | | Piedmont Floodplain Soils (F19) | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (MLRA 136, 147) | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | 6) | | Very 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 | | , | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | |
| | A 147, 148) | | MLRA 13 | , | | | 2 | |
| | Gleyed Matrix (S4) | | Umbric Surfa | . , . | | | ³ Indicators of hydrophytic vegetation and | |
| | Redox (S5) | | Piedmont Flo | • | . , | • | | |
| | d Matrix (S6) | | Red Parent N | Material (F2 | 21) (MLR | A 127, 147 | 7) unless disturbed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric Soil Present? Yes No | _ |
| Remarks: | | | | | | | | |
| No hydric soi | l indicators present | | | | | | | |



Photo 1 Upland data point WPOC100_u facing southeast



Photo 2 Upland data point WPOC100_u facing northwest

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahont | tas County | _ Sampling Date: 3/1 | 5/2016 |
|------------------------------------------------------------------------------|-----------------------|---------------------------|----------------------|---------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: | |
| Investigator(s): Team C | Section, Township, Ra | ange: No PLSS in this are | a | |
| | | vex, none): <u>none</u> | Slope | (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33338467</u> | Lor | ng: <u>-79.99466522</u> | Datum: \ | NGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: None | |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes 🔽 No _ | (If no, explain in I | Remarks.) | |
| Are Vegetation, Soil, or Hydrology significantly | / disturbed? Are | "Normal Circumstances" | present? Yes | No 🔽 |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If no | eeded, explain any answ | ers in Remarks.) | |
| SUMMARY OF FINDINGS – Attach site map showing | g sampling point l | ocations, transects | s, important feat | tures, 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: Wetland within drainage patterns of cl | over creek floodol | ain | | | |
| wettand within drainage patterns of ci | | an. | | | |
| | | | | | |
| | | | | | |
| HYDROLOGY | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) True Aquatic Plants (B14) | Sparsely Vegetated Concave Surface (B8) |
| 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 <u>V</u> No Depth (inches): 8 | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 | Wetland Hydrology Present? Yes <u></u> No |
| | |
| Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: | |

Sampling Point: wpoc101e_w

| | | Absolute | Dominant In | ndicator | Dominance Test worksheet: | |
|---------------------------------|-----------------------------|----------|---------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----|
| Tree Stratum (Plot size: | 30) | % Cover | Species? | Status | Number of Dominant Species | |
| 1 | | | · | | That Are OBL, FACW, or FAC: 2 (A) |) |
| 2 | | | | | | |
| 3 | | | | | Total Number of Dominant Species Across All Strata: 2 (B) | ` |
| | | | | | | , |
| 4 | | | · | | Percent of Dominant Species | |
| 5 | | | | | That Are OBL, FACW, or FAC:100 (A/ | /B) |
| 6 | | | · | | Prevalence Index worksheet: | |
| 7 | | | | | | |
| | | | = Total Cove | | Total % Cover of: Multiply by: | |
| | | 20% of | total cover: | 0 | | |
| Sapling/Shrub Stratum (Plot siz | ze:15) | | | | FACW species $x 2 = $ | |
| 1 | | | | | FAC species $60 	 x 3 = 180$ | |
| | | | | | FACU species x 4 =0 | |
| 2 | | | | | UPL species $5 \times 5 = 25$ | |
| 3 | | | | <u> </u> | 95 260 | D) |
| 4 | | | · | | Column Totals: (A) (E | D) |
| 5 | | | · | | Prevalence Index = B/A =2.73 | |
| 6 | | | | | Hydrophytic Vegetation Indicators: | |
| 7 | | | · | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | | | | ✓ 2 - Dominance Test is >50% | |
| 9 | | | | | \checkmark 3 - Prevalence Index is $\leq 3.0^{1}$ | |
| | | 0 | = Total Cove | r | | |
| | 50% of total cover: 0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporti | ing |
| Herb Stratum (Plot size: | 5) | | | | data in Remarks or on a separate sheet) | |
| 1. Setaria parviflora | , | 60 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. Juncus effusus | | 25 | Yes | FACW | | |
| 3. Daucus carota | | 5 | No | UPL | ¹ Indicators of hydric soil and wetland hydrology must | t |
| 4. Symplocarpus foetidus | | 5 | No | OBL | be present, unless disturbed or problematic. | |
| | | | | UBL | Definitions of Four Vegetation Strata: | |
| 5 | | | · | | Tree Meady plants such discuires 2 is (7.0 pm) | |
| 6 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless | |
| 7 | | | | | height. | 01 |
| 8 | | | | | | |
| 9. | | | | · | Sapling/Shrub – Woody plants, excluding vines, less | |
| · • · | | | | · | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. | I |
| 10 | | | · | ······································ | | |
| 11 | | 95 | · | <u> </u> | Herb - All herbaceous (non-woody) plants, regardles | SS |
| | 47 6 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. | |
| | 50% of total cover: 47.5 | 20% of | total cover: | 19 | Woody vine - All woody vines greater than 3.28 ft in | n |
| Woody Vine Stratum (Plot size: | 30) | | | | height. | • |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| | | | · · · · · · · · · · · · · · · · · · · | | Hydrophytic | |
| 5 | | - | | · | Vegetation Present? Yes <u>V</u> No | |
| | 50% of total cover: 0 | | = Total Cove | | | |
| | | | total cover: | . | | |
| Remarks: (Include photo numb | ers here or on a separate s | heet.) | | | | |
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| Depth Matrix Redox Features Type Loc ² Texture Remarks (inches) -6.8 7.5 YR 4/3 98 7.5 YR 5/6 2 C PL CL 8-18 7.5 YR 5/2 95 7.5 YR 5/8 5 C PLM C | | cription: (Describe to | the dep | | | | or confirm | the absence of | indicators.) | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|----------|--------------------|-------------|----------------------|------------|-----------------------------|-------------------------|---------------------------|
| 0-8 7.5 YR 4/3 98 7.5 YR 5/6 2 C PL CL 8-18 7.5 YR 5/2 95 7.5 YR 5/8 5 C PL/M C | Depth | Matrix | | | | | . 2 | - | . . | |
| 8-18 7.5 YR 5/2 95 7.5 YR 5/8 5 C PL/M C | | | | | | | | | Remarks | |
| *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Histosol (A1) Dark Surface (S7) Indicators for Problematic Hydric Soils*: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) 2 cm Muck (A10) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) 2 tratified Layers (A5) ✓ Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (URR N) Redox Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) (LRR N, MLRA 136, 122) Redox Dark Surface (F13) (MLRA 136, 122) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: | -0-8 | 7.5 YR 4/3 | 98 | 7.5 YR 5/6 | 2 | <u> </u> | PL | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | 8-18 | 7.5 YR 5/2 | 95 | 7.5 YR 5/8 | 5 | С | PL/M | С | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | . <u></u> | | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | - <u> </u> | | | | | | · | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | · | | | | · | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | | | | | · | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | | | | | · | · | · | | <u> </u> |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | · | | | | | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | <u> </u> | | | | · | | | | |
| Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : | | <u> </u> | | | | | | | _ | |
| Histosol (A1) | ¹ Type: C=C | Concentration, D=Deple | tion, RM | =Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location: PL=F | ore Lining, M=Matrix. | |
| | Hydric Soil | Indicators: | | | | | | Indicator | rs for Problematic Hy | dric Soils ³ : |
| Black Histic (A3) | Histoso | ol (A1) | | Dark Surface | e (S7) | | | 2 cm | Muck (A10) (MLRA 1 | 47) |
| | Histic E | pipedon (A2) | | · | | | | 148) Coas | st Prairie Redox (A16) | |
| | | () | | | | | 47, 148) | (M | ILRA 147, 148) | |
| 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, MLRA 147, 148) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: | Hydrog | en Sulfide (A4) | | Loamy Gleye | ed Matrix | (F2) | | Pied | mont Floodplain Soils (| (F19) |
| | Stratifie | ed Layers (A5) | | Depleted Ma | trix (F3) | | | (M | ILRA 136, 147) | |
| | 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (I | F6) | | Very | Shallow Dark Surface | (TF12) |
| Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Image: Comparison of the problematic of the pro | Deplete | ed Below Dark Surface | (A11) | Depleted Da | rk Surface | e (F7) | | Othe | r (Explain in Remarks) | |
| MLRA 147, 148) MLRA 136) | Thick D | Oark Surface (A12) | | Redox Depre | essions (F | 8) | | | | |
| | Sandy I | Mucky Mineral (S1) (LF | RR N, | Iron-Mangan | ese Mass | ses (F12) (I | LRR N, | | | |
| 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: | | | | | • | | | | | |
| Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: | Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) | (MLRA 13 | 6, 122) | ³ Indicat | tors of hydrophytic veg | etation and |
| Restrictive Layer (if observed): | Sandy I | Redox (S5) | | Piedmont Flo | odplain S | Soils (F19) | (MLRA 14 | 8) wetlar | nd hydrology must be p | oresent, |
| Type: | Strippe | d Matrix (S6) | | Red Parent I | Material (F | 21) (MLR | A 127, 147 | 7) unless | s disturbed or problema | atic. |
| Depth (inches): Remarks: Hydric Soil Present? | Restrictive | Layer (if observed): | | | | | | | | |
| Remarks: | Туре: | | | | | | | | | |
| | Depth (ir | nches): | | | | | | Hydric Soil Pre | esent? Yes 🖌 | No |
| Hydric soil present | Remarks: | | | | | | | 1 | | |
| | Hydric soil pi | resent | | | | | | | | |



Photo 1 Wetland data point WPOC101e_w facing southeast



Photo 2 Wetland data point WPOC101e_w facing northwest

| Project/Site: Atlantic Coast Pipeline | City/County: Por | cahontas County | _ Sampling Date: 3/15/2016 |
|-------------------------------------------------------------------|------------------------|-----------------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc101_u |
| Investigator(s): Team C | Section, Townsh | nip, Range: <u>No</u> PLSS in this area | а |
| Landform (hillslope, terrace, etc.): Floodplain | | e, convex, none): <u>none</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): S Lat: 38.3 | 3336274 | Long:79.99439418 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | No (If no, explain in R | 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: | | | | | |

| 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 | ng Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled | Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No _ | |
| | |
| Water Table Present? Yes No 🖌 Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): | |
| Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: | |

Sampling Point: wpoc101_u

| | , | | P | | | |
|----------------------------------|----------------------------|--------|-------------------------|-----|-----------------------------------------------------------------------------------------------------------|----------|
| Tree Stratum (Plot size: | 30 \ | | Dominant Ir Species? | | Dominance Test worksheet: | |
| | | | | | Number of Dominant Species | <i>.</i> |
| 1 | | | | | That Are OBL, FACW, or FAC:1 (| (A) |
| 2 | | | · · | | Total Number of Dominant | |
| 3 | | | | | | (B) |
| 4. | | | | | | . , |
| 5 | | | · · | | Percent of Dominant Species | |
| 5 | | | | | That Are OBL, FACW, or FAC: 100 (| (A/B) |
| 6 | | | · | | Prevalence Index worksheet: | |
| 7 | | | | | | |
| | | 0 | = Total Cover | | Total % Cover of: Multiply by: | |
| Ę | 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species 0 x 1 = 0 | |
| Sapling/Shrub Stratum (Plot size | . 15 | | | | FACW species $0 	 x 2 = 0$ | |
| | | | | | FAC species70 x 3 =210 | |
| 1 | | | | | FACU species $0 	 x 4 = 0$ | |
| 2 | | | · · | | 10 50 | |
| 3 | | | . | | UPL species $x = 260$ | |
| 4 | | | | | Column Totals: (A) | (B) |
| | | | | | 0.05 | |
| 5 | | | | | Prevalence Index = B/A =3.25 | |
| 6 | | | · · | | Hydrophytic Vegetation Indicators: | |
| 7 | | | · | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | | | | ✓ 2 - Dominance Test is >50% | |
| 9. | | | | | | |
| | | 0 | = Total Cover | | $_$ 3 - Prevalence Index is $\leq 3.0^1$ | |
| | 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide suppo | orting |
| | | 20% 0 | total cover. | | data in Remarks or on a separate sheet) | |
| Herb Stratum (Plot size: | 5) | 70 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |) |
| 1. Setaria parviflora | | 70 | Yes | FAC | | / |
| _{2.} Daucus carota | | 10 | No | UPL | 4 | |
| 3 | | | | | ¹ Indicators of hydric soil and wetland hydrology mu | ust |
| | | | | | be present, unless disturbed or problematic. | |
| 4 | | | | | Definitions of Four Vegetation Strata: | |
| 5 | | | · · | | Tree Woody plants evoluting vince 2 in (7.6 or | m) or |
| 6 | | | . | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles | |
| 7 | | | | | height. | 55 01 |
| 8 | | | | | | |
| | | | | | Sapling/Shrub – Woody plants, excluding vines, le | |
| 9 | | | · · | | than 3 in. DBH and greater than or equal to 3.28 ft | t (1 |
| 10 | | | · · | | m) tall. | |
| 11 | | | | | Herb – All herbaceous (non-woody) plants, regard | اودد |
| | | 80 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. | 1000 |
| r. | 50% of total cover: 40 | | total cover: | | | |
| | | | | | Woody vine – All woody vines greater than 3.28 ft | t in |
| Woody Vine Stratum (Plot size: | / | | | | height. | |
| 1 | | | · | | | |
| 2 | | | · | | | |
| 3 | | | | | | |
| | | | | | | |
| 4 | | | · · | | Hydrophytic | |
| 5 | | | · · | | Vegetation | |
| | | 0 | = Total Cover | | Present? Yes Vo No | |
| Ę | 50% of total cover: 0 | 20% of | total cover: | 0 | | |
| Remarks: (Include photo number | rs here or on a separate s | heet.) | | | | |
| | | | | | | |
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| Profile Desc | cription: (Describe to | the depth | needed to docun | nent the ir | dicator o | or confirm | the absend | e of indicate | ors.) | |
|------------------------|--------------------------|--------------|-------------------|-------------------|-------------------|------------------|------------------------|----------------|---------------|-----------------------------|
| Depth | Matrix | | Redox | k Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | ; |
| 0-18 | 7.5 YR 3/4 | 100 | | | | | SCL | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion. RM=Re | educed Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: | PL=Pore Lini | na. M=Matrix | κ. |
| Hydric Soil | | | , , | | | | | | 0. | lydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | | 2 cm Muck (J | A10) (MLRA | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | · · · | e (S8) (M | LRA 147, | | Coast Prairie | , , | |
| Black H | istic (A3) | | Thin Dark Su | | | | <i>,</i> | (MLRA 14 | 7, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | | | | | Piedmont Flo | odplain Soil | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Mat | rix (F3) | | | | (MLRA 13 | 6, 147) | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark S | Surface (F6 | 5) | | | Very Shallow | Dark Surfac | ce (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface | (F7) | | | Other (Expla | in in Remark | s) |
| Thick D | ark Surface (A12) | | Redox Depre | ssions (F8 |) | | | | | |
| Sandy M | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangane | ese Masse | s (F12) (I | _RR N, | | | | |
| MLR | A 147, 148) | | MLRA 130 | 6) | | | | | | |
| Sandy C | Eleyed Matrix (S4) | | Umbric Surfa | ce (F13) (| MLRA 13 | 6, 122) | ³ lı | ndicators of h | ydrophytic ve | egetation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain Sc | oils (F19) | (MLRA 148 | 8) \ | vetland hydro | logy must be | e present, |
| | l Matrix (S6) | | Red Parent M | laterial (F2 | 21) (MLR | A 127, 147 |) ı | inless disturb | ed or probler | matic. |
| Restrictive | Layer (if observed): | | | | | | | | | |
| Туре: | | | | | | | | | | |
| Depth (in | ches): | | _ | | | | Hydric So | oil Present? | Yes | No |
| Remarks: | | | | | | | | | | |
| N a la valata a st | | | | | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC101_u facing southeast



Photo 2 Upland data point WPOC101_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Po | ocahontas County | _ Sampling Date: 3/15/2016 | | |
|-----------------------------------------------------------------|--------------------------|---------------------------------|----------------------------|--|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc102e_w | | |
| Investigator(s): Team C | Section, Towns | hip, Range: No PLSS in this are | | | |
| Landform (hillslope, terrace, etc.): Floodplain | | ve, convex, none): <u>none</u> | Slope (%): <u>2</u> | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> | .33390478 | Long: <u>-79.99178752</u> | Datum: WGS 1984 | | |
| Soil Map Unit Name: | | NWI classif | ication: None | | |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in | Remarks.) | | |
| Are Vegetation 🖌 , Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" | present? Yes No _ | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any 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 | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------|-------------|----------------|---------------------------------------|-----|----|
| Remarks: | | | | | | |
| Wetland within clover creek floodplain | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Wetland Hydrology Indicato | ors: | | Secondary Indicators (minimum of two required) |
|------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------|------------------------------------------------|
| Primary Indicators (minimum | of one is required; ch | neck all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) | - | True Aquatic Plants (B14) | Sparsely Vegetated Concave Surface (B8) |
| High Water Table (A2) | - | Drainage Patterns (B10) | |
| Saturation (A3) | - | 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):8 | |
| | Yes 🖌 No 🔄 | Depth (inches):8 Depth (inches):0 | Wetland Hydrology Present? Yes <u></u> No |
| Water Table Present? Saturation Present? (includes capillary fringe) | Yes 🖌 No Yes 🖌 No | ^ | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |
| Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🖌 No Yes 🖌 No | Depth (inches):0 | |

Sampling Point: wpoc102e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| 4 | | | | 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 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | 0 | = Total Cove | er | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species x 1 =0 |
| 15 | | | | FACW species 25 x 2 = 50 |
| Sapling/Shrub Stratum (Plot size: 13) | | | | FAC species $\frac{60}{x 3} = \frac{180}{x 3}$ |
| 1 | | | | |
| 2 | | | | FACU species $x 4 = $ |
| 3 | | | | UPL species5 x 5 =25 |
| | | | | Column Totals: 90 (A) 255 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = $B/A = 2.83$ |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is $\leq 3.0^1$ |
| | 0 | = Total Cove | er | |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20 /0 01 | | | data in Remarks or on a separate sheet) |
| | 00 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Setaria parviflora | 60 | Yes | FAC | |
| 2. Juncus effusus | 25 | Yes | FACW | |
| 3. Daucus carota | 5 | No | UPL | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | | 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 | 90 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 45 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 45 | 20% of | total cover: | 18 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | lioigini |
| | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | l hudro a hudio |
| 5 | | | | Hydrophytic Vegetation |
| 0 | • | | | Present? Yes <u>V</u> No |
| | | = Total Cove | • | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Depth | Matrix | | | v Easture | | | | |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | <u>x Feature</u> % | Type ¹ | Loc ² | Texture | e Remarks |
| 0-4 | 10 YR 4/3 | 100 | | | <u></u> | | CL | |
| 4-18 | 2.5 Y 5/2 | 98 | 2.5 Y 5/6 | 2 | С | PL | С | |
| | | | | | | | | |
| . <u></u> | | | | | · | | | |
| | | | | | | | | |
| ¹ Type: C=C | Concentration, D=Deple | etion. RM | I=Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location | |
| | Indicators: | | | | | | | dicators for Problematic Hydric Soils ³ : |
| Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I | Epipedon (A2) distic (A3) len Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L | , | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan | elow Surfa urface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F esse Mass |) (MLRA 1 (F2) =6) = (F7) :8) | 47, 148) | 148) | 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Sandy (Sandy I Stripped | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent I | ace (F13) podplain S | Soils (F19) | (MLRA 14 | 8) | ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric S | Soil Present? Yes 🥙 No |
| Remarks: | | | | | | | | |
| Hydric soil pr | resent | | | | | | | |



Photo 1 Wetland data point WPOC102e_w facing northeast



Photo 2 Wetland data point WPOC102e_w facing southeast

| City/County: Pocahontas County | _ Sampling Date: 3/15/2016 |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State: WV | Sampling Point: wpoc102_u |
| | |
| Local relief (concave, convex, none): none | Slope (%): <u>2</u> |
| 17 Long: <u>-79.99223105</u> | Datum: WGS 1984 |
| NWI classif | fication: None |
| of year? Yes 🖌 No (If no, explain in | Remarks.) |
| antly disturbed? Are "Normal Circumstances" | ' present? Yes 🖌 No |
| y problematic? (If needed, explain any answ | vers in Remarks.) |
| | State: WVSection, Township, Range: No PLSS in this andLocal relief (concave, convex, none): noneLong: -79.99223105NWI classion f year? YesNo (If no, explain in antly disturbed? Are "Normal Circumstances" |

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: | | | | | |

| 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 Livin | ng Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) |) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled | Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| 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): | Wetland Hydrology Present? Yes No |
| Water Table Present? Yes No V 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): 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) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |

Sampling Point: wpoc102_u

| ` | , | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|-------------------------------|------------------------------|----------|--------------------------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: | 30) | | Species? | | Number of Dominant Species |
| 1 | | | | | That Are OBL, FACW, or FAC:1 (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 | | | | | Drevelance in dev warkels est. |
| 7 | | | <u> </u> | | Prevalence Index worksheet: |
| | | 0 | = Total Cove | er | Total % Cover of: Multiply by: |
| | 50% of total cover:(|) 20% o | f total cover: | 0 | OBL species $0 \times 1 = 0$ |
| Sapling/Shrub Stratum (Plot s | 15 | | | | FACW species x 2 =0 |
| 1 | | | | | FAC species x 3 = 210 |
| 2 | | | | | FACU species0 x 4 =0 |
| | | | | | UPL species 10 x 5 = 50 |
| 3 | | | | | Column Totals: 80 (A) 260 (B) |
| 4 | | | | | |
| 5 | | | | | Prevalence Index = B/A =3.25 |
| 6 | | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | | |
| 8 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 9. | | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | 0 | Tatal Cause | | $_$ 3 - Prevalence Index is $\leq 3.0^1$ |
| | 50% of total cover:0 | | = Total Cove f total cover: | <u>^</u> | 4 - Morphological Adaptations ¹ (Provide supporting |
| | - | 20% 0 | r total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: |) | 70 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Setaria parviflora | | 70 | Yes | FAC | |
| 2. Daucus carota | | 10 | No | UPL | |
| 3 | | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4 | | | | | |
| | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of |
| 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. | | | | | |
| | | 80 | = Total Cove | r | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| | 50% of total cover: 4 | | f total cover: | | |
| Woody Vine Stratum (Plot siz | | 20700 | | | Woody vine – All woody vines greater than 3.28 ft in |
| | / | | | | height. |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | <u> </u> | | |
| 4 | | | | | Hydrophytic |
| 5 | | | | | Vegetation |
| | | | = Total Cove | r | Present? Yes <u>V</u> No |
| | 50% of total cover: 0 | 20% 0 | f total cover: | 0 | |
| Demorkey (Include photo num | | | | | |
| Remarks: (Include photo num | incers here of on a separate | sneet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | n needed to docur | nent the in | dicator o | or confirm | the absence of indicators.) | |
|------------------------|------------------------------|-------------|-------------------|--------------|-------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Depth | Matrix | | Redo | x Features | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-18 | 7.5 YR 3/4 | 100 | | | | | SCL | |
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| | | | | | | | · · · · · · · · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ / | |
| | | · | | | | | | |
| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion. RM=I | Reduced Matrix. M | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | | | | | | | Indicators for Problematic Hydric Soils ³ : | : |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | · · · | e (S8) (M | LRA 147, | | |
| | istic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | | | Piedmont Floodplain Soils (F19) | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (MLRA 136, 147) | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F6 | 5) | | Very Shallow Dark Surface (TF12) | |
| Deplete | d Below Dark Surface | (A11) | Depleted Da | rk Surface | (F7) | | Other (Explain in Remarks) | |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F8 |) | | | |
| Sandy M | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | ese Masse | s (F12) (l | _RR N, | | |
| MLR | A 147, 148) | | MLRA 13 | , | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | · /· | | | ³ Indicators of hydrophytic vegetation and | |
| | Redox (S5) | | Piedmont Flor | • | . , | • | | |
| | d Matrix (S6) | | Red Parent N | Material (F2 | 21) (MLR | A 127, 147 | 7) unless disturbed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Present? Yes No | |
| Remarks: | | | | | | | 1 | |
| No hydric soi | l indicators present | | | | | | | |



Photo 1 Upland data point WPOC102_u facing northeast



Photo 2 Upland data point WPOC102_u facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: P | ocahontas County | _ Sampling Date: <u>3/16/2016</u> |
|--------------------------------------------------------------|--------------------------|-----------------------------------------|-----------------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc103e_w |
| Investigator(s): Team C | Section, Town | ship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): Hill slope | | ave, convex, none): <u>none</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: | 38.33727906 | Long: <u>-79.97969041</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: PEM1A |
| Are climatic / hydrologic conditions on the site typical for | this time of year? Yes | No (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any answ | vers in Remarks.) |
| | an chowing compling | a sint la sationa transpot | a important factures ato |

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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|----------------|---------------------------------------|-------|----|
| Remarks: | | | | | | |
| Wetland within pasture with livestock acc | cess. | | | | | |
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| required) |
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Sampling Point: wpoc103e_w

| | | Absolute | Dominant I | ndicator | Dominance Test worksheet: | |
|---------------------------------|-----------------------------|----------|--------------|----------|-------------------------------------------------------------------|------------|
| Tree Stratum (Plot size: | 30) | % Cover | Species? | Status | Number of Dominant Species | |
| 1 | | | . <u> </u> | | That Are OBL, FACW, or FAC: 2 (A | () |
| 2 | | | | | | |
| 3 | | | | | Total Number of Dominant Species Across All Strata: 2 (B | 2) |
| | | | | | | <i>'</i>) |
| 4 | | | | | Percent of Dominant Species | |
| 5 | | | | | That Are OBL, FACW, or FAC: (A | /B) |
| 6 | | | · | | Prevalence Index worksheet: | |
| 7 | | 0 | · | | Total % Cover of: Multiply by: | |
| | | | = Total Cove | | | |
| | | 20% of | total cover: | 0 | OBL species $\frac{1}{25}$ $x = \frac{1}{25}$ | |
| Sapling/Shrub Stratum (Plot siz | re:15) | | | | FACW species $x^2 = \frac{10}{100}$ | |
| 1 | | | | | FAC species $x_3 = $ | |
| 2 | | | | | FACU species x 4 =0 | |
| 3 | | | | | UPL species x 5 = | |
| | | | | | Column Totals: 95 (A) 250 (I | B) |
| 4 | | | | | | |
| 5 | | | | | Prevalence Index = B/A =2.63 | |
| 6 | | | · | | Hydrophytic Vegetation Indicators: | |
| 7 | | | | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | | | | ✓ 2 - Dominance Test is >50% | |
| 9. | | | | | | |
| | | 0 | = Total Cove | r | \checkmark 3 - Prevalence Index is ≤3.0 ¹ | |
| | 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide support | ting |
| Herb Stratum (Plot size: | _ | | | | data in Remarks or on a separate sheet) | |
| 1. Panicum virgatum | / | 50 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. Juncus effusus | | 20 | Yes | FACW | | |
| | | | | | ¹ Indicators of hydric soil and wetland hydrology must | st |
| 3. Verbena hastata | | 15 | No | FACW | be present, unless disturbed or problematic. | |
| 4. Verbesina alternifolia | | 10 | No | FAC | Definitions of Four Vegetation Strata: | |
| 5 | | | . <u> </u> | | _ | |
| 6 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) | |
| 7 | | | | | more in diameter at breast height (DBH), regardless height. | OT |
| | | | | | i olgita | |
| 8 | | | · | <u> </u> | Sapling/Shrub - Woody plants, excluding vines, les | |
| 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, regardle | ess |
| | | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. | |
| | 50% of total cover: 47.5 | 20% of | total cover: | 19 | Woody vine – All woody vines greater than 3.28 ft ir | n |
| Woody Vine Stratum (Plot size: | 30) | | | | height. | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| | | | | · | | |
| 4 | | | | · | Hydrophytic | |
| 5 | | - | | <u> </u> | Vegetation Present? Yes <u>Ves</u> No <u>No</u> | |
| | 50% of total cover: 0 | | = Total Cove | | | |
| | | | total cover: | <u> </u> | | |
| Remarks: (Include photo number | ers here or on a separate s | sheet.) | | | | |
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| | cription: (Describe to | o the de | | | | or confirm | the absence o | of indicators.) |
|----------------|---------------------------------------------------|--------------|---------------------------------------|-----------|-------------------------|--------------------|--------------------|------------------------------------------------------------|
| Depth | Matrix | | | x Feature | | . 2 | - | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | | <u>Type¹</u> | | <u> </u> | Remarks |
| 0-6 | 5 Y 6/2 | 95 | 10 YR 4/6 | 5 | C | PL/M | L | |
| 6-18 | 5 Y 6/4 | 95 | 10 YR 4/6 | 5 | С | PL/M | SL | |
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| 1 | | | | | | | 2 | |
| | Concentration, D=Deple | etion, RM | I=Reduced Matrix, MS | S=Maske | d Sand Gra | ains. | | =Pore Lining, M=Matrix. |
| - | Indicators: | | | | | | | tors for Problematic Hydric Soils ³ : |
| Histoso | . , | | Dark Surface | | (| | | cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | · | past Prairie Redox (A16) |
| | listic (A3) | | Thin Dark Su | | | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | | edmont Floodplain Soils (F19) |
| | d Layers (A5) | | ✓ Depleted Mar | . , | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) ed Below Dark Surface | (11) | Redox Dark Depleted Dar | • | , | | | ry Shallow Dark Surface (TF12) her (Explain in Remarks) |
| · | ark Surface (A12) | (ATT) | Redox Depre | | . , | | 0 | ner (Explain in Remarks) |
| | Mucky Mineral (S1) (Lf | | Iron-Mangan | | | | | |
| - | A 147, 148) | \\\ \ | MLRA 13 | | (112) (1 | LIXIX I X , | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | • | (MI RA 13 | 6, 122) | ³ Indic | cators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | , , | • | | | and hydrology must be present, |
| - | d Matrix (S6) | | Red Parent N | | | | | ess disturbed or problematic. |
| | Layer (if observed): | | | | / (| , | , | |
| Type: | , | | | | | | | |
| Depth (in | ches). | | | | | | Hydric Soil F | Present? Yes 🖌 No |
| | ionos). | | | | | | | |
| Remarks: | | | | | | | | |
| Hydric soil pr | resent | | | | | | | |



Photo 1 Wetland data point WPOC103e_w facing southeast



Photo 2 Wetland data point WPOC103e_w facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: Po | ocahontas County | _ Sampling Date: 3/16/2016 |
|-------------------------------------------------------------------|-------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc103_u |
| Investigator(s): Team C | Section, Towns | hip, Range: <u>No PLSS in this are</u> | а |
| Landform (hillslope, terrace, etc.): Hill slope | | ve, convex, none): <u>none</u> | _ |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3</u> | 33742856 | Long: <u>-79.97975316</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | 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 Hydrologysi | 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: | | | | | |

| 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 Livin | ng Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) |) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled | Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| 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): | Wetland Hydrology Present? Yes No |
| Water Table Present? Yes No V 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): 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) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |

Sampling Point: wpoc103_u

| · · · · · · · · · · · · · · · · · · · | Absolute | Dominant Ir | dicator | Dominance Test worksheet: | |
|---------------------------------------------------------|----------|----------------|----------|----------------------------------------------------------------------------------------------------------------------|------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | Number of Dominant Species | |
| 1 | | | | That Are OBL, FACW, or FAC: 1 (A | ٩) |
| 2 | | | | , | , |
| 3 | | | | Total Number of Dominant Species Across All Strata: 1 (E | 2) |
| | | | | |) |
| 4 | | | | Percent of Dominant Species | |
| 5 | | | | That Are OBL, FACW, or FAC: 100 (A | \/B) |
| 6 | | · | <u> </u> | Prevalence Index worksheet: | |
| 7 | 0 | | | Total % Cover of: Multiply by: | |
| 0 | | = Total Cover | 0 | $\begin{array}{c} \hline \hline \\ $ | |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | 0 0 | |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species $x 2 = \frac{1}{100}$ | |
| 1 | | | | FAC species $x_3 = $ | |
| 2 | | | | FACU species $x 4 = 75$ | |
| 3 | | | | UPL species 15 x 5 = 75 | |
| 4 | | | | Column Totals: (A) (A) (A) | (B) |
| 5 | | | | 0.00 | |
| | | | | Prevalence Index = B/A =3.62 | |
| 6 | | | | Hydrophytic Vegetation Indicators: | |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | <u> </u> | | ✓ 2 - Dominance Test is >50% | |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ | |
| 0 | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide suppor | tina |
| 50% of total cover:0 | 20% o | f total cover: | 0 | data in Remarks or on a separate sheet) | |
| Herb Stratum (Plot size: 5) | | | | | |
| 1. Setaria parviflora | 60 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| _{2.} Solanum carolinense | 20 | No | FACU | | |
| 3. Achillea millefolium | 15 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic. | st |
| 4. Daucus carota | 15 | No | UPL | | |
| 5. Schizachyrium scoparium | 10 | No | FACU | Definitions 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 | |
| 7 | | - <u> </u> | | height. | |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, les | ss |
| 9 | | - <u> </u> | | than 3 in. DBH and greater than or equal to 3.28 ft (| |
| 10 | | | | m) tall. | |
| 11 | | . <u> </u> | | Herb – All herbaceous (non-woody) plants, regardle | ess |
| | 120 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. | |
| 50% of total cover: 60 | 20% of | f total cover: | 24 | Weeduring All weedurings greater than 2.29 ft i | - |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft i height. | n |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| | | | | | |
| 4 | | | | Hydrophytic | |
| 5 | - | | | Vegetation Present? Yes <u>V</u> No | |
| 50% of total cover: 0 | | = Total Cover | 0 | | |
| | | f total cover: | 0 | | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | | |
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| Profile Des | cription: (Describe to | the depth | needed to docun | nent the in | dicator o | or confirm | the absenc | e of indicato | ors.) | |
|-------------|--------------------------|--------------|-------------------|---------------------|-------------------|------------------|-----------------|---------------|-------------------|-----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-12 | 10 YR 3/4 | 100 | | | | | SL | | | |
| 12-18 | 10 YR 5/8 | 100 | | | | | SL | | | |
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| | | | | · | | | | | | |
| | oncentration, D=Deple | etion, RM=Re | educed Matrix, MS | S=Masked S | Sand Gra | ins. | | | ng, M=Matrix | |
| Hydric Soil | Indicators: | | | | | | Indi | cators for Pr | oblematic H | lydric Soils ³ : |
| <u> </u> | (A1) | | Dark Surface | (S7) | | | | 2 cm Muck (/ | A10) (MLRA | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surface | e (S8) (M | LRA 147, 1 | 148) | Coast Prairie | Redox (A16 |) |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) (| (MLRA 1 | 47, 148) | | (MLRA 14 | 7, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | 2) | | | Piedmont Flo | odplain Soils | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Mat | trix (F3) | | | | (MLRA 13 | 6, 147) | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark S | Surface (F6 | 5) | | | Very Shallow | / Dark Surfac | e (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface (| F7) | | | Other (Expla | in in Remark | s) |
| Thick D | ark Surface (A12) | | Redox Depre | ssions (F8) |) | | | | | |
| Sandy M | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangane | ese Masses | s (F12) (L | .RR N, | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) (N | ILRA 136 | 6, 122) | ³ lr | dicators of h | ydrophytic ve | getation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain Soi | ils (F19) (| (MLRA 148 | 3) v | etland hydro | logy must be | present, |
| Stripped | Matrix (S6) | | Red Parent M | Aaterial (F2 | 1) (MLRA | A 127, 147) | U | nless disturb | ed or probler | natic. |
| Restrictive | Layer (if observed): | | | | | | | | | |
| Type: | | | | | | | | | | |
| Depth (in | ches): | | _ | | | | Hydric So | il Present? | Yes | No |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC103_u facing northwest



Photo 2 Upland data point WPOC103_u facing northeast

| Project/Site: Atlantic Coast Pipeline | Pocahontas County | _ Sampling Date: 3/16/2016 | |
|-------------------------------------------------------------------|--------------------------|------------------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc104e_w |
| Investigator(s): Team C | Section, Towr | nship, Range: <u>No PLSS</u> in this are | |
| Landform (hillslope, terrace, etc.): Drainage | | ave, convex, none): concave | Slope (%): <u>5</u> |
| | 33714103 | Long: <u>-79.97247487</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | 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 | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology r | naturally problematic? | (If needed, explain any answe | ers in Remarks.) |
| | - h | waint la antional transact | |

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: | | | · | | |
| Drainage within cattle pasture | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Wetland Hydrology Indicate | ors: | | 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) | | 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 | g 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 Aer | rial Imagery (B7) | | Shallow Aquitard (D3) |
| Water-Stained Leaves (B | 39) | | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | | | FAC-Neutral Test (D5) |
| Field Observations: | | | |
| Surface Water Present? | Yes <u>No</u> | Depth (inches): | |
| | | \mathbf{D} $(\mathbf{r}, \mathbf{r}) = 0$ | |
| Water Table Present? | Yes 💌 No 🔤 | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) | Yes 🖌 No _ | Depth (inches):0 | Wetland Hydrology Present? Yes <u></u> No |
| Saturation Present? (includes capillary fringe) | Yes 🖌 No _ | · · · · · · | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes 🖌 No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No eam gauge, monitori | Depth (inches):0 | |

Sampling Point: wpoc104e_w

| | | Absolute | Dominant I | ndicator | Dominance Test worksheet: | |
|-----------------------------------|---------------------------------------|----------|--------------|----------------------------------------|----------------------------------------------------------------|--------|
| Tree Stratum (Plot size: 30 |) | % Cover | Species? | Status | Number of Dominant Species | |
| 1 | | | | | | (A) |
| 2 | | | | | | |
| 3 | | | | | Total Number of Dominant Species Across All Strata: 3 | (B) |
| 4 | | | | | | (0) |
| | | | | · | Percent of Dominant Species | |
| 5 | | | | | That Are OBL, FACW, or FAC: 100 | (A/B) |
| 6 | · · · · · · · · · · · · · · · · · · · | | · | <u> </u> | Prevalence Index worksheet: | |
| 7 | | | | | Total % Cover of:Multiply by: | |
| | | | = Total Cove | | | |
| 50% | | 20% of | total cover: | 0 | | - |
| Sapling/Shrub Stratum (Plot size: | 15) | | | | FACW species $x^2 = \frac{100}{100}$ | • |
| 1 | | | | | FAC species $x_3 =$ | |
| 2 | | | | | FACU species x 4 = | |
| 3 | | | | | UPL species x 5 =0 | |
| 4 | | | | | Column Totals:(A)215 | (B) |
| 5 | | | | | 0.04 | |
| 6. <u></u> | | | | | Prevalence Index = B/A = 2.04 | • |
| | | | | | Hydrophytic Vegetation Indicators: | |
| 7 | | | | <u> </u> | 1 - Rapid Test for Hydrophytic Vegetation | |
| 8 | | | . <u> </u> | | 2 - Dominance Test is >50% | |
| 9 | | | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ | |
| | 0 | | = Total Cove | r 0 | 4 - Morphological Adaptations ¹ (Provide supp | ortina |
| - | 6 of total cover: 0 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) | 5 |
| Herb Stratum (Plot size: 5 |) | | | | Problematic Hydrophytic Vegetation ¹ (Explain | 2 |
| 1. Panicum virgatum | | 40 | Yes | FAC | | 1) |
| 2. Juncus effusus | | 30 | Yes | FACW | 4 | |
| 3. Carex lupulina | | 25 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology m | lust |
| 4 Dulichium arundinaceum | | 10 | No | OBL | be present, unless disturbed or problematic. | |
| | | | | | Definitions of Four Vegetation Strata: | |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 c | m) or |
| 6 | | | | | 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 | |
| 10 | | | | | m) tall. | |
| 11 | | | | | Herb – All herbaceous (non-woody) plants, regard | مالمعع |
| | | 105 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. | aless |
| 50% | 6 of total cover: 52.5 | | total cover: | | | |
| Woody Vine Stratum (Plot size: | 30) | | | | Woody vine – All woody vines greater than 3.28 height. | ft in |
| 1 | | | | | | |
| | | | | | | |
| 2 | | | | | | |
| 3 | | | · | ······································ | | |
| 4 | | | | | Hydrophytic | |
| 5 | | | | | Vegetation | |
| | • | | = Total Cove | • | Present? Yes <u>V</u> No | |
| 50% | 6 of total cover: 0 | 20% of | total cover: | 0 | | |
| Remarks: (Include photo numbers h | nere or on a separate s | heet.) | | | | |
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| Profile Desc | cription: (Describe t | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence o | f indicators.) | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Depth | Matrix | | | x Feature | S | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-12 | 2.5 Y 5/1 | 95 | 10 YR 4/6 | 5 | С | PL/M | SL | | |
| 12-18 | 10 YR 5/4 | 60 | 10 YR 5/8 | 40 | С | М | S | | |
| | | | | | | | | | |
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| | | | | | · · · · · · · · · · · · · · · · · · · | | | | |
| | oncentration, D=Depl | | -Reduced Matrix M | S-Masko | d Sand Gr | | | =Pore Lining, M=Matrix. | |
| Hydric Soil | | | | 0-111031(0) | | anio. | | ors for Problematic Hydric So | ils ³ : |
| Histosol Histic Ej Histic Ej Histic Ej Hydroge Stratifier 2 cm Mu Depleter Thick Di | | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depres Iron-Mangan | elow Surfa urface (S9 ed Matrix (trix (F3) Surface (I rk Surface essions (F |) (MLRA 1 (F2) =6) = (F7) :8) | 47, 148) | 148) Coa (Pie (Ver | m Muck (A10) (MLRA 147) ast Prairie Redox (A16) (MLRA 147, 148) dmont Floodplain Soils (F19) (MLRA 136, 147) ry Shallow Dark Surface (TF12) her (Explain in Remarks) | |
| MLR/ Sandy G Sandy F Stripped | A 147, 148) Gleyed Matrix (S4) Redox (S5) Matrix (S6) Layer (if observed): | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent M | 6) ace (F13) bodplain S | (MLRA 13 Soils (F19) | 6, 122) (MLRA 14 | 8) wetla | ators of hydrophytic vegetation a and hydrology must be present, ss disturbed or problematic. | and |
| | | | | | | | | | |
| Type: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil P | Present? Yes <u> </u> | <u> </u> |
| Remarks: | | | | | | | | | |
| Hydric soil ind | dicators present | | | | | | | | |



Photo 1 Wetland data point WPOC104e_w facing southwest



Photo 2 Wetland data point WPOC104e_w facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | Sampling Date: 3/16/2016 |
|-------------------------------------------------------------------|------------------------|-----------------------------------------|---------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc104_u |
| Investigator(s): Team C | Section, Townsh | nip, Range: <u>No PLSS in this area</u> | a |
| Landform (hillslope, terrace, etc.): Hill slope | | ve, convex, none): <u>none</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): S Lat: 38.33 | 3712564 | Long:79.97236227 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| 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 Hydrology sig | 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: | | | | | |

| 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 Livin | ng 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 | l 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 V 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 insp Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks: | |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |

Sampling Point: wpoc104_u

| , | Absolute | Dominant Ir | diaatar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| <u> </u> | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | · | | Percent of Dominant Species |
| 5 | | <u></u> | | 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 species0 x 1 =0 |
| 15 | 20 % 01 | | | FACW species 0 x 2 = 0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FAC species $60 \times 3 = 180$ |
| 1 | | · | | 45 190 |
| 2 | | · | | FACU species 45 x 4 = 160 |
| 3 | | <u> </u> | | UPL species 120 $X 5 = 435$ |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | 2.0.0 |
| | | | | Prevalence Index = B/A =3.62 |
| 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 | | 4 - Morphological Adaptations ¹ (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) |
| 1. Setaria parviflora | 60 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Solanum carolinense | 20 | No | FACU | |
| 3. Daucus carota | 15 | No | UPL | ¹ Indicators of hydric soil and wetland hydrology must |
| A Achillea millefolium | 15 | No | FACU | be present, unless disturbed or problematic. |
| | 10 | | | Definitions of Four Vegetation Strata: |
| 5. Schizachyrium scoparium | 10 | No | FACU | 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 | | | | |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 10 | | · | | |
| 11 | 120 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 60 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: <u>60</u> | 20% of | f total cover: | 24 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | <u> </u> | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | - | | | Vegetation Present? Yes V No |
| 50% of total cover: 0 | | = Total Cover | <u> </u> | |
| | | f total cover: | <u> </u> | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe to | the depth | needed to docur | nent the ir | ndicator o | or confirm | the absence of | indicators. |) | |
|--------------|-------------------------------|--------------|-----------------------------|-------------------------|-------------------|------------------|-----------------------------|---------------------------|-------------|---------------------------|
| Depth | Matrix | | Redo | x Features | 6 | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-12 | 10 YR 3/4 | 100 | | | | | SL | | | |
| 12-18 | 10 YR 5/8 | 100 | | | | | SL | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| | oncentration, D=Deple | etion, RM=Re | educed Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=I | | | |
| Hydric Soil | | | | (| | | | | - | dric Soils ³ : |
| Histosol | . , | | Dark Surface | · · · | | | | Muck (A10 | , . | 47) |
| | pipedon (A2) | | Polyvalue Be | | | | | st Prairie Re | | |
| | istic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | | | 47, 148) | • | ILRA 147, 1 mont Flood | , | (E10) |
| | d Layers (A5) | | Depleted Ma | | -2) | | | ILRA 136, 1 | | (F19) |
| | uck (A10) (LRR N) | | Redox Dark | . , | 6) | | • | Shallow Da | • | (TF12) |
| | d Below Dark Surface | (A11) | Depleted Dai | · · | , | | | er (Explain i | | . , |
| - | ark Surface (A12) | (// | Redox Depre | | | | | . (=,,p | , normanno, | |
| | /ucky Mineral (S1) (LI | RR N. | Iron-Mangan | | | RR N. | | | | |
| | A 147, 148) | | MLRA 13 | | · / · | , | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , ce (F13) (I | MLRA 13 | 6, 122) | ³ Indica | tors of hydro | ophytic veg | etation and |
| | Redox (S5) | | Piedmont Flo | | | | B) wetla | nd hydrolog | y must be p | present, |
| Stripped | l Matrix (S6) | | Red Parent N | Aaterial (F2 | 21) (MLR | A 127, 147 |) unles | s disturbed | or problem | atic. |
| Restrictive | Layer (if observed): | | | | | | | | | |
| Туре: | | | | | | | | | | |
| Depth (in | ches): | | _ | | | | Hydric Soil Pr | esent? Y | es | No 🖌 |
| Remarks: | - | | | | | | | | | |
| | Lindlanton nunnad | | | | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC104_u facing southwest



Photo 2 Upland data point WPOC104_u facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: [| Pocahontas County | _ Sampling Date: 4/12/2016 | | | |
|-------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|----------------------------|--|--|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc106e_w | | | |
| Investigator(s): Team C | Section, Towr | nship, Range: <u>No PLSS in this are</u> | | | | |
| Landform (hillslope, terrace, etc.): Drainage | | ave, convex, none): <u>concave</u> | _ | | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.</u> | 33620907 | Long: <u>-79.97205431</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classifi | cation: None | | | |
| Are climatic / hydrologic conditions on the site typical for thi | s time of year? Yes | No (If no, explain in I | Remarks.) | | | |
| Are Vegetation, Soil, or Hydrologys | significantly disturbed? | Are "Normal Circumstances" | present? Yes No _ | | | |
| Are Vegetation, Soil, or Hydrology r | naturally 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 | Is the Sampled Area within a Wetland? | Yes 🖌 | No | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|---------------------------------------|-------|----|--|--|
| Remarks: Vegetation is disturbed due to cattle access and pasture seeding. Wetland contains cow manure, lovestock hummocks, and algae. | | | | | | | |

| Wetland Hydrology Indicato | rs: | | | | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Indicators (minimum | of one is requ | ired; checl | k all that apply) | | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (B Aquatic Fauna (B13) | 0,1 | ∨ - - | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) | | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | | | | | |
| Surface Water Present? | Yes | No 🖌 | Depth (inches): | | |
| Water Table Present? | Yes 🖌 | No | Depth (inches):8 | | |
| Saturation Present? (includes capillary fringe) | Yes 🖌 | No | Depth (inches):0 | Wetland H | Hydrology Present? Yes _ ✔_ No |
| Describe Recorded Data (stre | am gauge, m | onitoring v | vell, aerial photos, previous inspec | tions), if ava | ailable: |
| | | | | | |
| Remarks: Wetland hydrology indicators p | present | | | | |
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Sampling Point: wpoc106e_w

| | Abcoluto | Dominant I | adicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| | | | | Number of Dominant Species |
| | | · | | 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 | | | | That Are OBL, FACW, or FAC:50 (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | | · | | Total % Cover of Multiply by |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species <u>10</u> x 1 = <u>10</u> |
| 15 | | ····· <u> </u> | | FACW species x 2 = 80 |
| Sapling/Shrub Stratum (Plot size: 13) | | | | 20 60 |
| 1 | | | | FAC species 20 $x 3 = 60$ |
| 2 | | | | FACU species x 4 =400 |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | · | | 170 550 |
| 4 | | · . <u></u> | | Column Totals: (A) (B) |
| 5 | | | | 2.02 |
| | | | | Prevalence Index = B/A = 3.23 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 0 | | · | | 2 - Dominance Test is >50% |
| 9 | | . <u> </u> | | 3 - Prevalence Index is $≤3.0^1$ |
| | 0 | = Total Cove | r | |
| 50% of total cover:0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | | | data in Remarks or on a separate sheet) |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| _{1.} Poa pratensis | 60 | Yes | FACU | |
| 2. Juncus effusus | 40 | Yes | FACW | |
| | 25 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. <i>Trifolium pratense</i> | 25 | No | FACU | be present, unless disturbed or problematic. |
| _{4.} Panicum virgatum | 20 | No | FAC | Definitions of Four Vegetation Strata: |
| 5. Taraxacum officinale | 15 | No | FACU | Demnitions of Four vegetation Strata: |
| | - 10 | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Carex lupulina | 10 | No | OBL | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | · | | noight |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | · | | , |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 170 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 85 | 20% of | total cover: | 34 | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| woody vine Stratum (Piot size) | | | | height. |
| 1 | | · | | |
| 2. | | | | |
| | | | | |
| 3 | | | | |
| 4 | | | | Undrankutia |
| 5 | | | | Hydrophytic Vegetation |
| 0 | _ | | | Present? Yes 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 | sheet) | | | 1 |
| | incot.) | | | |
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| Depth | Matrix | | | x Feature | S | | | |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-8 | 2.5 Y 4/2 | 95 | 10 YR 3/6 | 5 | С | PL | SL | |
| 8-18 | 10 YR 4/1 | 98 | 10 YR 4/6 | 2 | С | PL | SL | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Concentration, D=Depl | etion, RM | I=Reduced Matrix, M | S=Maske | d Sand Gra | ains. | | ore Lining, M=Matrix. |
| lydric Soil | Indicators: | | | | | | Indicator | s for Problematic Hydric Soils ³ : |
| Black H Hydrog Stratifie 2 cm M Deplete Thick D | I (A1) pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface park Surface (A12) Mucky Mineral (S1) (L | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depression Iron-Mangan | elow Surfa urface (S9 ed Matrix (trix (F3) Surface (I rk Surface essions (F |) (MLRA 1 (F2) =6) = (F7) :8) | 47, 148) | 148) Coas (M Piedu (M Very | Muck (A10) (MLRA 147) at Prairie Redox (A16) LRA 147, 148) mont Floodplain Soils (F19) LRA 136, 147) Shallow Dark Surface (TF12) r (Explain in Remarks) |
| MLR Sandy Sandy Strippe | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent N | 6) ace (F13) podplain S | (MLRA 13 Soils (F19) | 6, 122) (MLRA 14 | 8) wetlan | ors of hydrophytic vegetation and d hydrology must be present, s disturbed or problematic. |
| lestrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Pre | esent? Yes 🔽 No 🔜 |
| Remarks: | | | | | | | | |



Photo 1 Wetland data point WPOC106e_w facing north



Photo 2 Wetland data point WPOC106e_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahor | itas County | Sampling Date: 4/12/2016 | | | |
|-------------------------------------------------------------------|------------------------------|------------------------------------------------|---------------------------|--|--|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc106_u | | | |
| Investigator(s): Team C | Section, Township, Ra | Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): <u>Hill slope</u> | Local relief (concave, cor | | Slope (%): <u>5</u> | | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3</u> | 362445 Lo | ng: <u>-79.97217558</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classifi | cation: None | | | |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes <u></u> No | (If no, explain in F | Remarks.) | | | |
| Are Vegetation, Soil, or Hydrologys | gnificantly disturbed? Are | "Normal Circumstances" | present? Yes 🖌 No | | | |
| Are Vegetation, Soil, or Hydrology n | aturally problematic? (If n | eeded, 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></u> No <u></u> No | Is the Sampled Area within a Wetland? | Yes | No | <u>~</u> |
|---------------------------------------------------------------------------------------|-------------------|--------------------------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | |
| Data point in pasture | | | | | | |
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| Г | Made and the dealers and | 11. | - 4 - |

| 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 Pla | ants (B14) Sparsely Vegetated Concave Surface (B8) |
| High Water Table (A2) Hydrogen Sulfide | e Odor (C1) Drainage Patterns (B10) |
| Saturation (A3) Oxidized Rhizos | pheres on Living Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Red | duced Iron (C4) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Red | luction in Tilled Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surfa | ace (C7) Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in | n 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 <u></u> | |
| Water Table Present? Yes No Yes Depth (inches): | |
| Saturation Present? Yes No <u></u> | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos | s, previous inspections), if available: |
| | |
| Remarks: | |
| No wetland hydrology indicators present | |
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Sampling Point: wpoc106_u

| , | Absolute | Dominant II | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|-------------------|---------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | 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 | | | <u> </u> | That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | · | <u> </u> | Prevalence Index worksheet: |
| 7 | | <u></u> | | |
| | | = Total Cove | | $\begin{array}{c c} \underline{\text{Total } \% \text{ Cover of:}} \\ \hline \text{OPL encoded} \\ \hline \text{OPL encoded} \\ \hline \text{V1} = 0 \\ \hline \text{V1} = 0 \\ \hline \end{array}$ |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x^2 = 0$ |
| 1 | | | | FAC species $x^3 = $ |
| 2 | | | | FACU species <u>135</u> x 4 = <u>540</u> |
| 3 | | | | UPL species x 5 =0 |
| | | | | Column Totals:135 (A)540 (B) |
| 4 | | | | |
| 5 | | · | | Prevalence Index = B/A =4 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cove | • | 3 - Prevalence Index is $\leq 3.0^1$ |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Dactylis glomerata | 70 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Trifolium pratense | 30 | Yes | FACU | |
| 3. Achillea millefolium | 15 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| | | · | | be present, unless disturbed or problematic. |
| 4. Andropogon virginicus | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| 5. Rosa multiflora | 10 | No | FACU | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or 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 m) tall. |
| 10 | | · | | , |
| 11 | 135 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 50% of total cover: 67.5 | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| | 2 <u>0</u> 20% of | total cover: | 21 | 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 |
| | | = Total Cove | | Present? Yes No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Profile Desc | cription: (Describe to | the depth r | needed to docun | nent the ir | ndicator o | or confirm | the absence of indicators.) | |
|--------------|------------------------------------------------------|-----------------|------------------------------|-------------|-------------------|------------------|------------------------------------------------------|---|
| Depth | Matrix | | Redo | x Features | 5 | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-10 | 10 YR 4/4 | 100 | | | | | SL | |
| 10-18 | 2.5 Y 6/8 | 100 | | | | | LS | |
| | | | | | | | | |
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| | oncentration, D=Deple | etion, RM=Re | duced Matrix, MS | S=Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | 2 |
| Hydric Soil | | | | | | | Indicators for Problematic Hydric Soils | |
| Histosol | () | - | Dark Surface | · · · | | | 2 cm Muck (A10) (MLRA 147) | |
| - | pipedon (A2) | - | Polyvalue Be | | | | | |
| | istic (A3) | - | Thin Dark Su | . , | • | 47, 148) | (MLRA 147, 148) | |
| | en Sulfide (A4) | - | Loamy Gleye | • | -2) | | Piedmont Floodplain Soils (F19) | |
| | d Layers (A5) | - | Depleted Mat | , , | • | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | (| Redox Dark S | | , | | Very Shallow Dark Surface (TF12) | |
| · | d Below Dark Surface | (ATT) | Depleted Dar Depleted Dar | | | | Other (Explain in Remarks) | |
| | ark Surface (A12) /lucky Mineral (S1) (L l | - | Redox Depre Iron-Mangan | | | | | |
| | A 147, 148) | νιν ιν , | MLRA 13 | | 5 (F12) (| -nn N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | MI RA 13 | 6 122) | ³ Indicators of hydrophytic vegetation an | Ч |
| | Redox (S5) | - | Piedmont Flo | · / · | | | | u |
| | Matrix (S6) | - | Red Parent N | • | . , | • | | |
| | Layer (if observed): | - | | | | | | |
| Type: | | | | | | | | |
| Depth (in | choc): | | - | | | | Hydric Soil Present? Yes No | • |
| | uico). | | _ | | | | | |
| Remarks: | indiactora procent | | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC106_u facing west



Photo 2 Upland data point WPOC106_u facing south

| Project/Site: Atlantic Coast Pipeline | t/Site: Atlantic Coast Pipeline City/County: Pocahontas County Sampling Date: 4/ | | | | | |
|-------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------|----------------------------|--|--|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc107s_w | | | |
| Investigator(s): Team C | Section, Towns | ship, Range: <u>No PLSS</u> in this are | | | | |
| Landform (hillslope, terrace, etc.): Drainage | | ve, convex, none): <u>none</u> | Slope (%): <u>2</u> | | | |
| Subregion (LRR or MLRA): S Lat: | 38.3356366 | Long: <u>-79.97162907</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classif | ication: None | | | |
| Are climatic / hydrologic conditions on the site typical fo | r this time of year? Yes | _ No (If no, explain in | Remarks.) | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No | | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any answ | ers in Remarks.) | | | |
| | on chowing compling p | aint leastions transact | a important factures ato | | | |

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: | | | | | |
| Wetland within the floodplain of stream | | | | | |
| | | | | | |
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| Wetland Hydrology Indicato | rs: | | | | Secondary Indicators (minimum of two required) | | | |
|------------------------------------------------------------------------------------------------|-----------------|------------|------------------------------------------|-----------|------------------------------------------------|--|--|--|
| Primary Indicators (minimum of | of one is requi | red; 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) | | | |
| Saturation (A3) | | 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 Aeri | ial Imagery (B | 7) | | | 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): | | | | | |
| | | | 0 | | | | | |
| Water Table Present? | Yes 🖌 | No | _ Depth (inches):2 | | | | | |
| Water Table Present? Saturation Present? (includes capillary fringe) | | | _ Depth (inches):2 _ Depth (inches):0 | Wetland H | lydrology Present? Yes 🖌 No | | | |
| Saturation Present? (includes capillary fringe) | Yes 🖌 | No | 0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes 🖌 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes 🔽 | No | _ Depth (inches):0 | | · · · · | | | |

Sampling Point: wpoc107s_w

| | | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|-----------------------------------|------------------------------|----------|---------------------------------------|----------|-------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30 |)) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | | Total New Area of Developed |
| 3 | | | | | Total Number of Dominant Species Across All Strata: 4 (B) |
| 4 | | | | · | |
| | | | · | · | Percent of Dominant Species |
| 5 | | | | | That Are OBL, FACW, or FAC:75 (A/E |
| 6 | | | | | Prevalence Index worksheet: |
| 7 | | | | | |
| | | 0 | = Total Cove | | Total % Cover of: Multiply by: OPL appaging 60 x 1 = 60 |
| 50 | 0% of total cover: 0 | 20% of | total cover: | 0 | OBL species $x_1 = $ |
| Sapling/Shrub Stratum (Plot size: |) | | | | FACW species $x 2 = $ |
| _{1.} Salix sericea | | 60 | Yes | OBL | FAC species 40 x 3 = 120 |
| 2 | | | | | FACU species 30 x 4 = 120 |
| 2 | | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | <u> </u> | 150 340 |
| 4 | | | | | Column Totals: (A) (B) |
| 5 | | | | | Prevalence Index = $B/A = 2.26$ |
| 6 | | | | | |
| 7 | | | | | Hydrophytic Vegetation Indicators: |
| 8 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | · | <u> </u> | 2 - Dominance Test is >50% |
| 9 | | 60 | · | <u> </u> | <u>✓</u> 3 - Prevalence Index is ≤3.0 ¹ |
| | 20 | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supportir |
| | 0% of total cover: <u>30</u> | 20% of | total cover: | 12 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: |) | | | | |
| _{1.} Panicum virgatum | | 40 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Dactylis glomerata | | 20 | Yes | FACU | |
| 3. Juncus effusus | | 20 | Yes | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| <u>4</u> Trifolium pratense | <u> </u> | 10 | No | FACU | be present, unless disturbed or problematic. |
| ·· | | | | 17.00 | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) c |
| 6. <u> </u> | | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | | height. |
| 8 | | | | | |
| 9. | | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| * | | | · · · · · · · · · · · · · · · · · · · | <u> </u> | 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 |
| | | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50 | 0% of total cover: 45 | 20% of | total cover: | 18 | 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 | 0% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers | here or on a separate s | | | | |
| | | 1000.) | | | |
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| Depth | Matrix | | | x Feature | S | | | |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| nches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-10 | 2.5 Y 5/2 | 98 | 10 YR 4/6 | 2 | С | PL | SL | |
| 10-18 | 2.5 Y 5/2 | 90 | 10 YR 4/6 | 10 | С | PL/M | SL | |
| | | | · | | | | | |
| | | | | | | | | |
| | Concentration, D=Depl | etion. RM | 1=Reduced Matrix. M | S=Masked | | | ² Location: F | PL=Pore Lining, M=Matrix. |
| | Indicators: | , | , | | | | | cators for Problematic Hydric Soils ³ : |
| Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy | pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) luck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L | 、 , | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark 3 Depleted Dark Redox Depres Iron-Mangan | low Surfa rface (S9 d Matrix (trix (F3) Surface (F k Surface essions (F esse Mass |) (MLRA 1 F2) F6) (F7) 8) | 47, 148) | 148) | 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Sandy Sandy Strippe | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed): | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent M | ce (F13) (odplain S | oils (F19) | (MLRA 14 | 8) w | dicators of hydrophytic vegetation and retland hydrology must be present, nless disturbed or problematic. |
| Type: | , | | | | | | | |
| Depth (ir | nches): | | | | | | Hvdric So | il Present? Yes 🖌 No |
| | | | | | | | , | ···· |



Photo 1 Wetland data point WPOC107s_w facing southeast



Photo 2 Wetland data point WPOC107s_w facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: Pod | cahontas County | Sampling Date: 4/12/2016 |
|-----------------------------------------------------------------|--------------------------|----------------------------------|---------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc107_u |
| Investigator(s): Team C | Section, Townsh | nip, Range: No PLSS in this area | |
| Landform (hillslope, terrace, etc.): Hill slope | | e, convex, none): <u>none</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> | .33568838 | Long: <u>-79.97170432</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" p | oresent? Yes <u>/</u> 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></u> No <u></u> No | Is the Sampled Area within a Wetland? | Yes | No | <u>~</u> |
|---------------------------------------------------------------------------------------|-------------------|--------------------------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | |
| Data point in pasture | | | | | | |
| | | | | | | |
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| Wetland Hydrology Indicate | ors: | | | | Secondary Indicators (minimum of two required) | | | |
|----------------------------------------------------|--------------|------------|------------------------------------------|-----------------|------------------------------------------------|--|--|--|
| Primary Indicators (minimum | of one is re | | 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) | | 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 Second | 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 Ae | rial Imagery | r (B7) | | | Shallow Aquitard (D3) | | | |
| Water-Stained Leaves (E | 39) | | | | 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? (includes capillary fringe) | Yes | No | _ Depth (inches): | Wetland H | Hydrology Present? Yes No | | | |
| Describe Recorded Data (stre | eam gauge, | monitoring | well, aerial photos, previous inspec | ctions), if ava | ailable: | | | |
| Descardo | | | | | | | | |
| Remarks: No wetland hydrology indicato | ore present | | | | | | | |
| No welland hydrology indicate | Jis present | | | | | | | |
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Sampling Point: wpoc107_u

| , | Absolute | Dominant I | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| 1 | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: <u>2</u> (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | f total cover: | 0 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 =0 |
| | | | | FAC species 0 x 3 = 0 |
| 1 | | | <u> </u> | FACU species 155 x 4 = 620 |
| 2 | | | | |
| 3 | | | | $\begin{array}{c} \text{UPL species} 0 x \ 5 = 0 \\ \text{Output the species} 155 (x) 620 (x) \end{array}$ |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Dravalance Index D/A 4 |
| 6 | | | | Prevalence Index = B/A =4 |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 9 | 0 | | <u> </u> | 3 - Prevalence Index is ≤3.0 ¹ |
| 0 | | = Total Cove | r 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% o | f total cover: | <u> </u> | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: <u>5</u>) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Dactylis glomerata | 70 | Yes | FACU | |
| 2. Trifolium pratense | 30 | Yes | FACU | |
| _{3.} Dipsacus fullonum | 20 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. Achillea millefolium | 15 | No | FACU | |
| 5. Rosa multiflora | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| 6. Andropogon virginicus | 10 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | 1700 | 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 | | | | m) tall. |
| 11. | | | | |
| | 155 | = Total Cove | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 77.5 | | f total cover: | | |
| | 2078.0 | | | Woody vine – All woody vines greater than 3.28 ft in |
| <u> </u> | | | | height. |
| 1 | · | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic Vegetation |
| o | | = Total Cove | | Present? Yes No |
| 50% of total cover: 0 | | f total cover: | 0 | |
| | | r total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| | cription: (Describe t | o the depth | | | | or confirm | the absence | of indicato | ors.) | |
|----------------------------------------------------------------------------|---------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------|------------------|----------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------|
| Depth (inches) | Matrix Color (moist) | % | Color (moist) | <u>x Features</u> % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-10 | 10 YR 4/4 | 100 | | | | | SL | | rtomanto | |
| 10-18 | 2.5 Y 6/8 | 100 | | | | | LS | | | |
| <u></u> | | | | | | | | | | |
| | · | | | | | | | | | |
| | | | | | | | | | | |
| · | | · · | | | | | | | | |
| | | | | | | | | | | |
| | Concentration, D=Depl | | aduard Matrix M | | | | ² Location: PL | Doro Lini | na M. Motriv | |
| | Indicators: | | educed Matrix, M | S=IVIASKEU | Sanu Gra | an 15. | | | | ydric Soils ³ : |
| Histosc Histic E Black H Hydrog Stratifie 2 cm M Deplete | | e (A11) | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depreted Da | elow Surfac urface (S9) ed Matrix (I atrix (F3) Surface (F rk Surface | (MLRA 1 F2) 6) (F7) | | 2 (148) Co Pi Ve | cm Muck (A bast Prairie (MLRA 14 edmont Flo (MLRA 13 ery Shallow | A10) (MLRA Redox (A16 7, 148) podplain Soils | 1 47)) s (F19) e (TF12) |
| MLR | Mucky Mineral (S1) (L A 147, 148) | RR N, | Iron-Mangan MLRA 13 | 6) | . , . | | â | | | |
| - | Gleyed Matrix (S4) | | Umbric Surfa | · / · | | | | - | ydrophytic ve | - |
| | Redox (S5) d Matrix (S6) | | Piedmont Flo Red Parent I | • | . , | • | • | • | logy must be ed or problen | • |
| | Layer (if observed): | | | vialeriai (F. | | A 127, 147 | , unio | ะรร แรเปม | | |
| Type: | | | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil | Present? | Yes | No 🖌 |
| Remarks: | / | | | | | | , | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC107_u facing north



Photo 2 Upland data point WPOC107_u facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas Co | unty | _ Sampling Date: <u>4/12/2016</u> |
|------------------------------------------------------------------|------------------------------------|---------------------|-----------------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc108s_w |
| Investigator(s): Team C | Section, Township, Range: | No PLSS in this are | |
| Landform (hillslope, terrace, etc.): Floodplain | Local relief (concave, convex, n | | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.</u> | 336094 Long: <u>-7</u> | 9.97101922 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: None |
| Are climatic / hydrologic conditions on the site typical for thi | s time of year? Yes 🗹 No | (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? Are "Norm | al Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (If needed | , explain any answ | ers in Remarks.) |
| | chowing compling point loost | iono tronocot | a important factures ato |

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 _ | <pre> </pre> </th <th>No No No</th> <th>Is the Sampled Area within a Wetland?</th> <th>Yes 🖌</th> <th>No</th> | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------|-------|----|
| Remarks: Wetland within floodplain of spoc119 | | | | | | |
| | | | | | | |
| | | | | | | |

| | ors: | | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum | of one is required; che | eck all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (E Aquatic Fauna (B13) | rial Imagery (B7) | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) | Dry-Season Water Table (C2) |
| Field Observations: | | | |
| Surface Water Present? Water Table Present? | Yes 🖌 No 🔜 | Depth (inches):4 Depth (inches):0 Depth (inches):0 | Wetland Hydrology Present? Yes <u>V</u> No |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | | well, aerial photos, previous inspec | |
| (includes capillary fringe) Describe Recorded Data (stre Remarks: | eam gauge, monitoring | | |
| (includes capillary fringe) Describe Recorded Data (stre | eam gauge, monitoring | | |

Sampling Point: wpoc108s_w

| | | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|--------------------------------------|--------------------|----------|------------------------------|-----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30 |) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | | | | |
| 3 | | | | | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| | | | | | |
| 4 | | | | | Percent of Dominant Species |
| 5 | | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | | Prevalence Index worksheet: |
| 7 | | | | | |
| | | 0 | = Total Cove | | <u>Total % Cover of:</u> <u>Multiply by:</u> OPL appaging 30 x 1 = 30 |
| 50% of t | otal cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: | 15) | | | | FACW species $x^2 = 20$ |
| 1. Alnus serrulata | | 30 | Yes | OBL | FAC species 10 x 3 = 30 |
| 2 | | | | | FACU species x 4 =0 |
| | | | | <u> </u> | UPL species $0 	 x 5 = 0$ |
| 3 | | | | | Column Totals: 50 (A) 80 (B) |
| 4 | | | | | (A) (B) |
| 5 | | | . <u> </u> | | Prevalence Index = B/A =1.6 |
| 6 | | | | | |
| 7 | | | | | Hydrophytic Vegetation Indicators: |
| 8 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | · | <u> </u> | ✓ 2 - Dominance Test is >50% |
| 9 | | 30 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | otal cover: 15 | | = Total Cove | er 6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| - | otal cover: 15 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5 |) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Panicum virgatum | | 10 | Yes | FAC | |
| 2. Viola cucullata | | 10 | Yes | FACW | 1 |
| 3 | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 4 | | | | | be present, unless disturbed or problematic. |
| | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | <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 | | | | | |
| ···· | | 20 | Tatal O | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of t | otal cover: 10 | | = Total Cove total cover: | | of size, and woody plants less than 5.20 it tail. |
| | 30) | 20% 0 | total cover. | <u> </u> | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: |) | | | | height. |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| | | | | | Hydrophytic |
| 5 | | - | | | Vegetation Present? Yes <u>Ves</u> No |
| | 0 | | = Total Cove | <u>^</u> | |
| 50% of 1 | otal cover: 0 | 20% of | total cover: | • | |
| Remarks: (Include photo numbers here | or on a separate s | neet.) | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Depth | Matrix | | Redo | x Feature | s | | | |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-8 | 10 YR 4/2 | 97 | 10 YR 3/6 | 3 | С | PL | SL | |
| 8-18 | 10 YR 4/3 | 97 | 10 YR 3/6 | 3 | С | PL | SL | |
| | | | | | | | | |
| | | | | | · | | | |
| | | | | | · | · | | |
| ¹ Type: C=C | Concentration, D=Depl | letion, RN | I=Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location: PL=P | ore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indicator | s for Problematic Hydric Soils ³ : |
| Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy | pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface Park Surface (A12) Mucky Mineral (S1) (L | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan | elow Surfa urface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F esse Mass |) (MLRA 1 (F2) F6) ∋ (F7) ⁽⁸⁾ | 47, 148) | 148) Coas (M Piedr (M Very | Muck (A10) (MLRA 147) at Prairie Redox (A16) LRA 147, 148) mont Floodplain Soils (F19) LRA 136, 147) Shallow Dark Surface (TF12) r (Explain in Remarks) |
| Sandy Sandy Strippe | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent N | ace (F13) podplain S | Soils (F19) | (MLRA 14 | 8) wetlan | ors of hydrophytic vegetation and d hydrology must be present, disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Pre | esent? Yes 🚩 No |
| Remarks: | | | | | | | | |



Photo 1 Wetland data point WPOC108s_w facing west



Photo 2 Wetland data point WPOC108s_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | _ Sampling Date: 4/12/2016 |
|-------------------------------------------------------------------|-------------------------|---------------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: wpoc108_u |
| Investigator(s): Team C | Section, Township | o, Range: <u>No PLSS in this area</u> | |
| Landform (hillslope, terrace, etc.): Slight slope | | convex, none): <u>none</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): S Lat: 38.3 | 33596218 | Long: -79.97086426 | 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 | <u> </u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | |

| 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 Livi | ng 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 Tillec | d 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 <u></u> | |
| Saturation Present? Yes No <u></u> | Wetland Hydrology Present? Yes No |
| | |
| Saturation Present? Yes No Vo Depth (inches): | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |
| Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: | |

Sampling Point: wpoc108_u

| Tes Stratum (Plot size: | Tree Stratum (Plot size: 30 % Cover Status Number of Dominant Species 0 (A) 2. Overvas aba 30 Yes FACU Total Number of Dominant Species 0 (A) 3. Provastratum 15 No FACU Total Number of Dominant Species 0 (A) 4. | , , , | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------|---------------|----------|-------------------------------------------------------------------|
| 1_0urreus rubra 40 Yes FACU That Are OBL in RADW, or FAC: 0 (A) 2_0urreus alba 30 Yes FACU That Are OBL in RADW, or FAC: 0 (A) 3_minus arbous 15 No FACU Total Number of Dominant Species 0 (A) 5 | Quercus rubre 40 Yes FACU That Are OBL (FACW, or FAC: 0 (A) 2 Ouercus alba 30 Yes FACU That Are OBL (FACW, or FAC: 0 (A) 3 Pinus atrabus 15 No FACU Total Number of Dominant Species 0 (A) 5 | Tree Stratum (Plot size: 30) | | | | |
| 2. Quercus alba 30 Yes FACU Total Number of Dominant 5 3. Prove strobus 15 No FACU Total Number of Dominant 5 6 5. Prevalence Index worksheet: 0 (AB) 7. Total Cover Total Score of Multiply by: 5. Total Score of Multiply by: 1. Kalma labébia 4. 5. 6. 9. 16. 17. | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | FACU | |
| a. Provs strabus 15 No FACU Total Number of Dominant 5 (B) 4. | 3. Phus strabus 15 No FACU Total Number of Dominant 5 (B) 4. | | 30 | Yes | FACU | |
| 4 | 4 | | 15 | No | FACU | E |
| 5. | 5. | 3. <u>Finds strobus</u> | | | 17.00 | Species Across All Strata: 5 (B) |
| 5. | 5. | 4 | | | | Percent of Dominant Species |
| 6. | 6. | 5 | | | | |
| 7. | 7. 85 = Total Cover Prevalence Index worksheet: Sabing/Shrub Stratum (Plot size: 15 20% of total cover: 17 Total 3% Cover of x x1 = 0 1. Kalmia latfolie 20 Yes FACU FACU species 0 x3 = 0 2. 20 Yes FACU species 0 x3 = 0 FACU species 0 x3 = 0 4. - - - - FACU species 0 x3 = 0 FACU species 0 x4 = 0 0 0 x4 = 0 0 x4 = 0 0 x4 = 0 0 x4 = 0 0 0 x4 = 0 x4 0 x4 = 0 x4 = 0 0 x4 = 0 x4 = 0 | 6. | | | | |
| Both Stratum Both Stratum Total Cover Total Socy of total cover: Multicly by: Saping/Shrub Stratum 60% of total cover: 17 7 OBL species 0 x 1 = 0 1. Kalmia latifolia 20 Yes FACU Species 0 x 2 = 0 2. 20 Yes FACU Species 0 x 4 = 500 3. 20 Yes FACU Species 0 x 4 = 500 5. 20 Yes FACU Species 0 x 5 = 0 6. 20 7 Species 0 x 5 = 0 0 0 0 0 20 FACU Species 0 x 5 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0< | Both Both Total Cover Multiply by: Saping/Shrub_Stratum 60% of total cover: 17 FACU Species 0 x 1 = 0 1. Katmia latifolia 20 Yes FACU Species 0 x 2 = 0 2. 20 Yes FACU Species 0 x 2 = 0 3. 20 Yes FACU Species 0 x 4 = 500 4. 20 Yes FACU Species 0 x 4 = 500 5. 20 Yes FACU Species 0 x 5 = 0 60 (Potto size: 125 (A) 500 (B) 9. 20 Total Cover 20 Total Cover 4 Hydrophytic Vegetation Indicators: 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | | | | | Prevalence Index worksheet: |
| Solve of total cover:12.520% of total cover:17 OBL species 0 x 1 = 0 1. Katimia latifolia 20 Yes FACU species 0 x 2 = 0 2. 20 Yes FACU species 0 x 3 = 0 3. 20 Yes FACU species 0 x 3 = 0 4. 20 Yes FACU species 0 x 4 = 500 9. 20 Yes FACU species 0 x 5 = 0 9. 20 Total Cover 1 Rapid Test for Hydrophytic Vegetation 9. 20 Total Cover 1 Rapid Test for Hydrophytic Vegetation 1. 20 Total Cover 4 Hydrophytic Vegetation Indicators: 1. 20 Total Cover 4 Hydrophytic Vegetation (fcrvide supporting data in Remarks or on a separate sheet) 1. Potolinia inpide 20 Yes FACU 2. Chimaphila maculata 5 Yes Yes 3. Chimaphila maculata 5 Yes Toe 4. Potolinia insin DBH and greater than or equal to a 328 if till. | Solve of total cover:12.520% of total cover:17 OBL species 0 x 1 = 0 FACW species 0 x 1 = 0 FACW species 0 x 2 = 0 FACW species 0 x 2 = 0 FACW species 0 x 3 = 0 FACU species 0 x 4 = 500 UPL species 0 x 5 = 0 UPL species 125 (A) 500 (B) 2 | | 85 | | | Total % Cover of: Multiply by: |
| Sapping/Shrub Stratum (Plot size:1 15 FACU species0 x 2 =0 1, Kalmia latifolia 20 Yes FACU species0 x 3 =0 2 | Saping/Shrub Stratum (Plot size: | 50% of total cover: 42.5 | | | | OBL species $0 	 x 1 = 0$ |
| Sabing Shrub Stratum (Plot size: | Sabing Shrub Stratum (Plot size: | 15 | 20 /0 01 | | | EACW species 0 $x_2 = 0$ |
| Provide stratum Plot stratum Provide stratum Pro | 2 | Sapling/Shrub Stratum (Plot size:) | 20 | Vee | FACU | 0 |
| 2 | 2 | 1. Kaimia latifolia | 20 | res | FACU | 125 500 |
| 3. | 3. | 2 | | | | FACU species $x 4 = $ |
| 4. | 4. Column Totals: Its3 (A) 300 (B) 6. | 3. | | | | UPL species x 5 = |
| 5. | 5 | 4 | | | | Column Totals: (A) (B) |
| 6. | 6. | | | | <u> </u> | |
| 7. | 7. | | | · | | Prevalence Index = B/A =4 |
| 7 | 7 | ٥ | | <u> </u> | | Hydrophytic Vegetation Indicators: |
| 8. | 8. | 7 | | <u> </u> | | |
| 9. 20 = Total Cover 3 - Prevalence Index is ≤3.0 ¹ Herb Stratum (Plot size:) 20% of total cover:4 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 2. Chimaphila maculata 5 Yes FACU 3. 20 Yes FACU 2. Chimaphila maculata 5 Yes Problematic Hydrophytic Vegetation ¹ (Explain) 1. 5 Yes Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 4. | 9. 20 = Total Cover 3 - Prevalence Index is ≤3.0 ¹ Herb Stratum (Plot size:) 20 Yes FACU 1. Potentilla simplex 20 Yes FACU 2. Chimaphila maculata 5 Yes Problematic Hydrophytic Vegetation' (Explain) 1. Potentilla simplex 20 Yes FACU 2. Chimaphila maculata 5 Yes Problematic Hydrophytic Vegetation' (Explain) 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: 5. — — — 6. — — — 7. — — — 8. — — — 9. — — — 10. — — — 11. _ _ _ _ 20. g = Total Cover _ _ _ 50% of total cover: 10. _ _ _ 12. _ _ _ _ _ 13. Prevalence Index | 8 | | | | |
| 20 = Total Cover 50% of total cover: 10 20% of total cover: 4 - - - - 2. Chimaphila simplex 20 2. Chimaphila maculata 5 3. - 4. - 5. - 6. - 7. - 6. - 7. - 6. - 7. - 6. - 7. - 8. - 9. - 10. - 11. - 20% of total cover: 125 50% of total cover: 125 50% of total cover: 125 20% of total cover: 5 50% of total cover: 125 20% of total cover: - 50% of total cover: 0 10. - 11. - 20% = Total Cover 50% of total cover: 0 <t< td=""><td>20 = Total Cover 50% of total cover: 10 20% of total cover: 4 1. Potentilla simplex 20 2. Chimaphila maculata 5 3. 5 4. 5 5. 7 6. 7 7. 6 7. 6 7. 6 7. 6 8. 9 9. 6 10. 10. 11. 20 50% of total cover: 125 50% of total cover: 20 50% of total cover: 20 50% of total cover: 20 50% of total cover: 0 20% of total cover: 0 50% of total cover: 0 20% of total cover: 0 20% of total cover: 10. 10. 30 11. 10 20% of total cover:</td><td>9.</td><td></td><td></td><td></td><td></td></t<> | 20 = Total Cover 50% of total cover: 10 20% of total cover: 4 1. Potentilla simplex 20 2. Chimaphila maculata 5 3. 5 4. 5 5. 7 6. 7 7. 6 7. 6 7. 6 7. 6 8. 9 9. 6 10. 10. 11. 20 50% of total cover: 125 50% of total cover: 20 50% of total cover: 20 50% of total cover: 20 50% of total cover: 0 20% of total cover: 0 50% of total cover: 0 20% of total cover: 0 20% of total cover: 10. 10. 30 11. 10 20% of total cover: | 9. | | | | |
| 50% of total cover: 10 20% of total cover: 4 Herb Stratum (Plot size: 5 Yes FACU 2 Chimaphila maculata 5 Yes 3 5 Yes FACU 4 5 Yes Problematic Hydrophytic Vegetation ¹ (Explain) 1 1 1 1 1 2 Chimaphila maculata 5 Yes Yes 4 - - - - 6 - - - - 7 - - - - 8 - - - - 9 - - - - 10 - - - - 10 - - - - 11 - 20 = Total Cover 5 50% of total cover: 12.5 20% of total cover: 5 10 - - - - 1. - - - - 2. - | 50% of total cover: 10 20% of total cover: 4 Herb Stratum (Plot size: 5 Yes FACU 2 Chimaphila maculata 5 Yes 3 5 Yes FACU 4 5 Yes Problematic Hydrophytic Vegetation ¹ (Explain) 1 1 1 1 1 2 Chimaphila maculata 5 Yes Yes 4 - - - - 6 - - - - 7 - - - - 8 - - - - 9 - - - - 10 - - - - 11 - - - - 10 - 20 = Total Cover 5 50% of total cover: 12.5 20% of total cover: 5 10 - - - - 11. - - - - 20 = Total C | | 20 | = Total Cover | , | |
| Herb Stratum (Plot size: 5) 1. Potentilla simplex 20 Yes FACU 2. Chimaphila maculata 5 Yes — 3. | Herb Stratum (Plot size:5) 20 Yes FACU 2. Chimaphila simplex 20 Yes FACU 2. Chimaphila maculata 5 Yes | 50% of total cover: 10 | | | 4 | 4 - Morphological Adaptations' (Provide supporting |
| 1. Potentilia simplex 20 Yes FACU 1. Potentilia simplex 5 Yes 3 | 1. Potentila simplex 20 Yes FACU 1. Potentila simplex 5 Yes 3. | F | | | | data in Remarks or on a separate sheet) |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | 20 | Voo | EACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 3. | 3. | | | | FACU | |
| 3 | 3 | 2. Chimaphila maculata | 5 | Yes | | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. | 4. | 3 | | | | |
| 5. | 5. | | | | | |
| 6. | 6. | | | | | Deminions of Four vegetation Strata. |
| 7. | 7. | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 8. | 8. | | | | | |
| 9. | 9. | 7 | | | | height. |
| 9 | 9 | 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 11. 20 = Total Cover 50% of total cover: 12.5 20% of total cover: 5 Woody Vine Stratum (Plot size: 30) . . 2. 3. 4. 5. 50% of total cover: 2. 3. 5. 50% of total cover: 50% of total cover: | 11. 20 = Total Cover 50% of total cover: 12.5 20% of total cover: 5 Woody Vine Stratum (Plot size: 30) 1 | 9 | | | | |
| $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20\% \text{ of total cover: } 5}$ $\frac{20}{20\% \text{ of total cover: } 0}$ | $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{50\% \text{ of total cover:}}{20\% \text{ of total cover:}} = \frac{5}{20\% \text{ of total cover}} = \frac{5}{20\% \text{ otal cover}} = \frac{5}{20\% o$ | 10 | | | | |
| $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20\% \text{ of total cover: } 5}$ $\frac{20}{20\% \text{ of total cover: } 6}$ | $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{20}{20} = \text{Total Cover}$ $\frac{50\% \text{ of total cover:}}{20\% \text{ of total cover:}} = \frac{5}{20\% \text{ of total cover}} = \frac{5}{20\% \text{ otal cover}} = \frac{5}{20\% o$ | 11. | | | | |
| 50% of total cover: 12.5 20% of total cover: 5 Woody Vine Stratum (Plot size: 30) | 50% of total cover: 12.5 20% of total cover: 5 Woody Vine Stratum (Plot size: 30) 1 1. | | 20 | | | |
| Woody Vine Stratum (Plot size:30) Woody vine Stratum (Plot size:30) 1 | Woody Vine Stratum (Plot size:30) Woody vine Stratum (Plot size:30) 1 | 50% of total cover: 12.5 | | | | |
| Ineight. 1 | neight. 1 | | 2070 01 | 10101 00 VCI | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | | height. |
| 3. 4. | 3. 4. | 1 | | · | | |
| 4 Hydrophytic 5 0 = Total Cover 50% of total cover: 0 Z0% of total cover: 0 Hydrophytic 0 = Total Cover Present? Yes No | 4 Hydrophytic 5 $0 = \text{Total Cover}$ 50% of total cover: $0 = \text{Total Cover}$ 0 = Total Cover 0 = Total cover $0 = \text$ | 2 | | | | |
| 5 0 = Total Cover $Vegetation$ Present? Yes No | 5 0 = Total Cover 50% of total cover: 20% of total cover: 0 = Total Cover Ves No | 3 | | | | |
| 5 0 = Total Cover $Vegetation$ Present? Yes No | 5 0 = Total Cover 50% of total cover: 20% of total cover: 0 = Total Cover Ves No | 4. | | | | the decord of the |
| | | | | | | |
| 50% of total cover: 20% of total cover:0 | 50% of total cover: 20% of total cover:0 | ··· | | Total Caver | | |
| | | 50% of total appears 0 | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | Remarks: (Include photo numbers here or on a separate sheet.) | | | total cover. | | |
| | | Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe to | the depth | needed to docun | nent the in | dicator o | or confirm | the absence of indicators.) |
|------------------------|--------------------------|------------------|------------------|--------------|--------------------|------------------|--------------------------------------------------------|
| Depth | Matrix | | Redo | x Features | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-8 | 10 YR 5/3 | 100 | | | | | SL |
| 8-18 | 10 YR 5/6 | 100 | | | | | SL |
| | | | | | | <u> </u> | |
| | | | | | · | . <u> </u> | · |
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| | | | | | | · | |
| | | | | | · | | |
| ¹ Type: C=C | oncentration, D=Deple | tion RM=Re | educed Matrix MS | S=Masked | Sand Gra | ins | ² Location: PL=Pore Lining, M=Matrix. |
| Hydric Soil | | | | machea | | | Indicators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) |
| | oipedon (A2) | | Polyvalue Be | · · · | e (S8) (M | I RA 147. | |
| | istic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | . , | • | ,, | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mat | | 2) | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | . , | 3) | | Very Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (411) | Depleted Dark | | , | | Other (Explain in Remarks) |
| | ark Surface (A12) | (411) | Redox Depre | | | | |
| | /ucky Mineral (S1) (LF | | Iron-Mangane | | | | |
| - | A 147, 148) | λι λ ΙΝ , | IIOII-Marigana | | 5 (F12) (L | .nn n , | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | | 5 122) | ³ Indicators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | · · · | | | |
| | Matrix (S6) | | | • | • • | • | |
| | Layer (if observed): | | Red Parent M | iateriai (F2 | | A 127, 147) | unless disturbed or problematic. |
| | • • • | | | | | | |
| | | | _ | | | | |
| Depth (in | ches): | | _ | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | |
| No hydrio opi | indicators proport | | | | | | |

No hydric soil indicators present



Photo 1 Upland data point WPOC108_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas County | Sampling Date: 3/23/2016 |
|-------------------------------------------------------------------|--------------------------|--------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe008e_w |
| Investigator(s): CG, AS | Section, Township | o, Range: No PLSS in this area | |
| Landform (hillslope, terrace, etc.): hollow | | convex, none): <u>concave</u> | Slope (%): <u>3</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3</u> | 32030696 | Long: <u>-79.91263563</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical for this | s time of year? Yes I | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrologys | significantly disturbed? | Are "Normal Circumstances" p | resent? Yes No |
| Are Vegetation, Soil, or Hydrology r | naturally problematic? | (If needed, explain any answe | rs in Remarks.) |
| | | | • • • • • • |

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

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

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|---------------------------------------------------------|---------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is require | red; 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 Research | oots (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 Soil | s (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 (B | 7) | 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): | |
| | No Depth (inches):0 | |
| | 0 | Wetland Hydrology Present? Yes <u></u> No |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, mo | nitoring well, aerial photos, previous inspection | ons), if available: |
| | | |
| Demorko: | | |
| Remarks: | acts hydrology | |
| Remarks: impoundment above wetland significantly aff | ects hydrology | |
| | ects hydrology | |

Sampling Point: wpoe008e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:100 (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| /· | 0 | | | Total % Cover of: Multiply by: |
| | | = Total Cove | er O | $OBL species \qquad 0 \qquad x \ 1 = 0$ |
| 50% of total cover: 0 | 20% of | total cover: | 0 | 20 10 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x_2 = 20$ |
| 1 | | | | FAC species $x_3 = $ |
| 2 | | | | FACU species $5 	 x 4 = 20$ |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | 35 00 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | · | | Prevalence Index = B/A =2.57 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | | | ✓ 2 - Dominance Test is >50% |
| 9 | 0 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | = Total Cove | er O | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Packera aurea | 15 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2 Carex blanda | 10 | Yes | FAC | |
| 3. Juncus effusus | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| A Pinus strobus | 5 | No | FACU | be present, unless disturbed or problematic. |
| 4. Pinus strobus | 5 | INO | FACU | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | | more in diameter at breast height (DBH), regardless of height. |
| 7 | | · | | neight. |
| 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. | | | | |
| | 35 | = Total Cove | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:17.5 | | total cover: | | |
| 22 | 20% 0 | total cover: | <u> </u> | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | |
| 2 | | | | |
| | | | | |
| 3 | | | | |
| 4 | | · . <u></u> | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 0 | | | |
| | | | 0 | |
| | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | 0 | |
| | 20% of | | 0 | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | 0 | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | | |
| Remarks: (Include photo numbers here or on a separate s | 20% of | | 0 | |

| Profile Desc | cription: (Describe to | o the dept | h needed to docum | ent the i | ndicator | or confirm | the absence of i | ndicators.) | |
|------------------------|--------------------------|------------|-----------------------------------|-------------|---------------------|------------------|-----------------------------|------------------------|--------------|
| Depth | Matrix | | Redox | Feature | s | | | | |
| (inches) | Color (moist) | % | Color (moist) | | Type ¹ | Loc ² | Texture | Remarks | |
| 0-12 | 2.5Y 5/2 | 90 | 10YR 3/6 | 10 | С | М | С | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM= | Reduced Matrix, MS | =Masked | Sand Gra | ains. | ² Location: PL=P | ore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | | s for Problematic H | |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 cm | Muck (A10) (MLRA 1 | 147) |
| Histic E | pipedon (A2) | | Polyvalue Bel | ow Surfa | ce (S8) (N | ILRA 147, | 148) Coas | t Prairie Redox (A16) | |
| Black H | istic (A3) | | Thin Dark Sur | face (S9) |) (MLRA 1 | 47, 148) | (M | LRA 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleyed | | | | Piedn | nont Floodplain Soils | (F19) |
| Stratifie | d Layers (A5) | | Depleted Mate | rix (F3) | | | (M | LRA 136, 147) | |
| | uck (A10) (LRR N) | | Redox Dark S | Surface (F | -6) | | Very | Shallow Dark Surface | e (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Darl | k Surface | e (F7) | | Other | · (Explain in Remarks | ;) |
| Thick D | ark Surface (A12) | | Redox Depres | ssions (F | 8) | | | | |
| Sandy M | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangane | ese Mass | es (F12) (I | LRR N, | | | |
| MLR | A 147, 148) | | MLRA 136 | 5) | | | | | |
| Sandy C | Eleyed Matrix (S4) | | Umbric Surfac | ce (F13) (| (MLRA 13 | 6, 122) | ³ Indicate | ors of hydrophytic veg | getation and |
| Sandy F | Redox (S5) | | Piedmont Floo | odplain S | oils (F19) | (MLRA 14 | 8) wetland | d hydrology must be | present, |
| Stripped | Matrix (S6) | | Red Parent M | laterial (F | 21) (MLR | A 127, 147 | ') unless | disturbed or problem | atic. |
| Restrictive | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pre | sent? Yes 🖌 | No |
| Remarks: | | | | | | | 1 | | |
| Soil has been | disturbed in past for i | mnoundm | ant creation | | | | | | |

Soil has been disturbed in past for impoundment creation



Photo 1 Wetland data point wpoe008e_w facing south



Photo 2 Wetland data point wpoe008e_w facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Pod | cahontas County | Sampling Date: 3/23/2016 |
|-------------------------------------------------------------------|------------------------|-----------------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe008_u |
| Investigator(s): CG, AS | Section, Townsh | nip, Range: <u>No PLSS in this area</u> | a |
| Landform (hillslope, terrace, etc.): slope | | e, convex, none): <u>none</u> | 10 |
| Subregion (LRR or MLRA): S Lat: 38.32 | 2036656 | Long:79.91248831 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: None |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrologysig | inificantly disturbed? | Are "Normal Circumstances" | oresent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology na | turally 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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | v |
|---------------------------------------------------------------------------------------|-------------------|-------------|---------------------------------------|-----|----|---|
| Remarks: | | | | | | |

| 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 | 3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) | Crayfish Burrows (C8) |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Water Table Present? Yes No <u></u> | |
| | d Hydrology Present? Yes No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if | available: |
| | |
| Remarks: | |
| | |
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Sampling Point: wpoe008_u

| | • | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|----------------------------------|-------------------------|----------|---------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: | 30) | | | Status | Number of Dominant Species |
| 1 Pinus strobus | | 50 | Yes | FACU | That Are OBL, FACW, or FAC:1 (A) |
| 2. Acer saccharum | | 30 | Yes | FACU | |
| | | | | | Total Number of Dominant |
| 3 | | | | | Species Across All Strata: 4 (B) |
| 4 | | | . <u></u> | | Demonstrat Demoiser at Operation |
| 5 | | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:25 (A/B) |
| | | | | | |
| 6 | | | | | Prevalence Index worksheet: |
| 7 | | 80 | | | Total % Cover of: Multiply by: |
| | | | = Total Cover | | |
| | 50% of total cover: 40 | 20% of | total cover: | 16 | OBL species $x_1 = 0$ |
| Sapling/Shrub Stratum (Plot size | e:15) | | | | FACW species x 2 = |
| 1 Pinus strobus | ·, | 15 | Yes | FACU | FAC species $30 \times 3 = 90$ |
| | | | | | FACU species 95 x 4 = 380 |
| 2 | | | <u> </u> | | |
| 3 | | | | | 125 /70 |
| 4 | | | | | Column Totals: (A) (B) |
| 5 | | | - | - | 2.76 |
| | | | | | Prevalence Index = B/A =3.76 |
| 6 | | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | | 2 - Dominance Test is >50% |
| 9. | | | | | |
| | | 15 | = Total Cover | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 50% of total cover: 7.5 | | total cover: | 3 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 5 N | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: |) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Lycopodium clavatum | | 30 | Yes | FAC | |
| 2 | | | | | |
| 3 | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | | be present, unless disturbed or problematic. |
| 4 | | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | | Tree Meedy plants evaluating vince 2 in (7.6 cm) or |
| 6 | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | | height. |
| | | | | | |
| 8 | | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | | m) tall. |
| 11 | | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | 30 | = Total Cover | r | of size, and woody plants less than 3.28 ft tall. |
| | 50% of total cover: 15 | | total cover: | | , |
| | | 2070 01 | | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: |) | | | | height. |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| | | | | | Hydrophytic |
| 5 | | | | | Vegetation |
| | | | = Total Cover | ſ | Present? Yes No V |
| | 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbe | | heet.) | | | 1 |
| | | , | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docun | nent the in | dicator o | or confirm | the absence of i | ndicators.) | | |
|-------------|---------------------------------------------|-------------|------------------------|----------------------------------------|-------------------|------------------|-----------------------------|---------------|------------|---------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-12 | 10YR 5/3 | 100 | | | | | С | | | |
| | | | | . <u> </u> | | | | | | |
| | | <u> </u> | | | | | | | | |
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| | | | | | | | · · | | | |
| | oncentration, D=Depl | etion, RM=l | Reduced Matrix, MS | S=Masked S | Sand Gra | ains. | ² Location: PL=P | | | |
| Hydric Soil | Indicators: | | | | | | Indicator | s for Probl | ematic Hy | dric Soils ³ : |
| Histoso | l (A1) | | Dark Surface | | | | | Muck (A10) | (MLRA 1 | 47) |
| | pipedon (A2) | | Polyvalue Be | | | | 148) Coas | t Prairie Re | dox (A16) | |
| | istic (A3) | | Thin Dark Su | | • | 47, 148) | • | LRA 147, 1 | | |
| | en Sulfide (A4) | | Loamy Gleye | | 2) | | | nont Floodp | | (F19) |
| | d Layers (A5) | | Depleted Mat | . , | | | • | LRA 136, 1 | • | |
| | uck (A10) (LRR N) | () | Redox Dark S | (| , | | | Shallow Da | | , , |
| | d Below Dark Surface | (A11) | Depleted Dar | • | , | | Other | · (Explain in | Remarks) | |
| | ark Surface (A12) | | Redox Depre | · · / | | | | | | |
| - | Mucky Mineral (S1) (L A 147, 148) | KK N, | Iron-Mangan MLRA 13 | | s (F12) (I | _RR N, | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | | 6 122) | ³ Indicat | are of hydro | nhytic yea | etation and |
| | Redox (S5) | | Piedmont Flo | | | | | d hydrology | | |
| | d Matrix (S6) | | Red Parent N | • | . , | • | • | disturbed c | | |
| | Layer (if observed): | | | | ., (| , | | | , problom | |
| Type: | | | | | | | | | | |
| | ches): | | | | | | Hydric Soil Pre | aanto V | | No 🖌 |
| | | | | | | | nyuric Soil Pre | | es | |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Photo 1 Upland data point wpoe008_u facing south



Photo 2 Upland data point wpoe008_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: Poc | ahontas County | Sampling Date: 3/23/2016 |
|-------------------------------------------------------------------|------------------------|---------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe009s_w |
| Investigator(s): CG, AS | Section, Townshi | p, Range: <u>No PLSS in this area</u> | |
| Landform (hillslope, terrace, etc.): floodplain | | e, convex, none): <u>concave</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3</u> | 1939718 | Long: -79.91296242 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology sig | gnificantly disturbed? | Are "Normal Circumstances" p | oresent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology na | aturally problematic? | (If needed, explain any answe | rs in Remarks.) |
| | | | |

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

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

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Water Table Present? Yes ✓ | Wetland Hydrology Present? Yes <u>V</u> No tions), if available: |

Sampling Point: wpoe009s_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|-----------|---------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| 1 Betula nigra | 10 | Yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) |
| ·· | | . <u> </u> | <u> </u> | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 3 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:66.66666666 (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | 10 | · | | Total % Cover of: Multiply by: |
| | 10 | = Total Cove | | 00 00 |
| 50% of total cover: 5 | 20% of | f total cover: | 2 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 = 30 |
| | 20 | Vee | | 0 |
| _{1.} <i>Rosa palustris</i> | 30 | Yes | OBL | FAC species $0 \times 3 = 0$ |
| 2. Pinus strobus | 5 | No | FACU | FACU species $x 4 = $ |
| | | · | | UPL species $0 	 x 5 = 0$ |
| 3 | | | . <u> </u> | 50 80 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | _ | |
| | | · | <u> </u> | Prevalence Index = B/A =1.6 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9 | | | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| | 35 | = Total Cove | r | |
| 50% of total cover: 17.5 | | f total cover: | 7 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | <u> </u> | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| _{1.} Carex sp. | 80 | Yes | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| ² Juncus effusus | 5 | No | FACW | |
| 2. 000003 000000 | | | 1700 | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| | | | | |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | . <u> </u> | | |
| 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> | | Conting/Chruh Mandy planta avaluding vince loss |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | · · · · · · · · · · · · · · · · · · · | | m) tall. |
| 10 | | · | | 11) tali. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 5 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:42.9 | 5 000/ -4 | f total cover: | | |
| | <u> </u> | 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 | | <u></u> | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes Vo No |
| 50% of total cover: 0 | | f total cover: | <u>^</u> | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| Dormant Carex sp. assumed FACW or wetter. | | | | |
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| Profile Des | cription: (Describe to | o the dep | oth needed to docur | nent the i | indicator | or confirm | the absence of | indicators.) |
|-------------|--------------------------------------------|---------------|---------------------------|------------|-------------------|------------|----------------------|------------------------------------------------|
| Depth | Matrix | | | x Feature | 4 | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> | Type' | | Texture | Remarks |
| 0-12 | 10YR 5/2 | 90 | 10YR 3/6 | 10 | С | PL/M | SIL | |
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| | concentration, D=Deple | etion, RM | =Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | | Pore Lining, M=Matrix. |
| | Indicators: | | | | | | | rs for Problematic Hydric Soils ³ : |
| Histoso | . , | | Dark Surface | | | | | n Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | • | st Prairie Redox (A16) |
| | listic (A3) | | Thin Dark Su | | | 47, 148) | • | /LRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | | Imont Floodplain Soils (F19) |
| | d Layers (A5) | | ✓ Depleted Ma | · · · | -0) | | • | /LRA 136, 147) |
| | uck (A10) (LRR N) | () | Redox Dark | • | , | | | / Shallow Dark Surface (TF12) |
| | ed Below Dark Surface ark Surface (A12) | (ATT) | Depleted Date Redox Depre | | | | | er (Explain in Remarks) |
| | Mucky Mineral (S1) (L | | Iron-Mangan | | | | | |
| | A 147, 148) | ΝΝ Ν , | MLRA 13 | | es (F12) (| LNN N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | (MI RA 13 | 6 122) | ³ Indicat | tors of hydrophytic vegetation and |
| - | Redox (S5) | | Piedmont Flo | | | | | nd hydrology must be present, |
| | d Matrix (S6) | | Red Parent N | • | , , | • | • | s disturbed or problematic. |
| | Layer (if observed): | | | | ,(| | / | |
| Type: | | | | | | | | |
| | schoc): | | | | | | Hydric Soil Pr | esent? Yes 🖌 No |
| Depth (ir | | | | | | | nyaric Soli Pr | |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Photo 1 Wetland data point wpoe009s_w facing north



Photo 2 Wetland data point wpoe009s_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahor | ntas County | Sampling Date: 3/23/2016 |
|---------------------------------------------------------------------|---------------------------|----------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe009_u |
| Investigator(s): CG, AS | Section, Township, R | ange: <u>No PLSS</u> in this are | a |
| Landform (hillslope, terrace, etc.): <u>flat</u> | | nvex, none): <u>none</u> | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.31</u> | 93296 Lo | ng: <u>-79.91271835</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: None |
| Are climatic / hydrologic conditions on the site typical for this t | ime of year? Yes 🔽 No | (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology sig | nificantly disturbed? Are | "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology nat | urally problematic? (If r | 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 | <u> 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、</u> | Is the Sampled Area within a Wetland? | Yes | No | <u>~</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| 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 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 Sc | 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) | 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): | Wetland Hydrology Present? Yes No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions) if available: |
| | |
| Remarks: | |
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Sampling Point: wpoe009_u

| | Absolute | Dominant I | adioator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | Status | |
| 1 Pinus strobus | 45 | Yes | FACU | Number of Dominant Species |
| 14 | 5 | | | That Are OBL, FACW, or FAC:1 (A) |
| 2. Prunus serotina | | No | FACU | Total Number of Dominant |
| _{3.} Carpinus caroliniana | 5 | No | FAC | Total Number of Dominant Species Across All Strata: 4 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | | . <u></u> | | That Are OBL, FACW, or FAC: 25 (A/B) |
| 6. | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | | | | Total % Cover of: Multiply by: |
| | 55 | = Total Cove | r | |
| 50% of total cover: 27.5 | 20% of | total cover: | 11 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =0 |
| | 20 | Voo | EACU | FAC species x 3 = 255 |
| 1. Berberis thunbergii | 30 | Yes | FACU | 110 110 |
| _{2.} Pinus strobus | 25 | Yes | FACU | FACU species X 4 = |
| 3. Ostrya virginiana | 5 | No | FACU | UPL species $0 \times 5 = 0$ |
| 3 | | | | 105 605 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | 2.56 |
| | | | | Prevalence Index = B/A =3.56 |
| б. <u></u> | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| - | | | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 60 | = Total Cove | | |
| 50% of total cover: 30 | 20% of | total cover: | 12 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | | ····· <u> </u> | | data in Remarks or on a separate sheet) |
| | 00 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Lycopodium clavatum | 80 | Yes | FAC | |
| 2 | | | | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | 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 | | | | Ŭ |
| 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: 40 | 20% of | total cover: | 16 | |
| 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 |
| | - | = Total Cove | r | Present? Yes No |
| | | | <u>^</u> | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docur | nent the in | ndicator | or confirm | the absence of indi | cators.) | |
|------------------------|--------------------------|-------------|-------------------|---------------|---------------------|------------------|--------------------------------|-----------------------|-----------------------------|
| Depth | Matrix | | Redo | x Features | 8 | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | i |
| 0-12 | 10YR 4/3 | 100 | | | | | SIC | | |
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| ¹ Type: C=C | oncentration, D=Depl | etion, RM=l | Reduced Matrix, M | S=Masked | Sand Gra | ains. | ² Location: PL=Pore | Lining, M=Matrix | κ. |
| Hydric Soil | Indicators: | | | | | | Indicators for | r Problematic F | lydric Soils ³ : |
| <u> </u> | l (A1) | | Dark Surface | e (S7) | | | 2 cm Mu | ck (A10) (MLRA | 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfac | ce (S8) (N | ILRA 147, | 148) Coast Pr | airie Redox (A16 | 5) |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) | (MLRA 1 | 47, 148) | (MLR) | A 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | ed Matrix (F | F2) | | Piedmon | t Floodplain Soils | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (MLR) | A 136, 147) | |
| | uck (A10) (LRR N) | | Redox Dark | | , | | | llow Dark Surfac | · · · |
| · | d Below Dark Surface | e (A11) | Depleted Date | | . , | | Other (E | plain in Remark | s) |
| | ark Surface (A12) | | Redox Depre | | | | | | |
| - | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | • | | of hydrophytic ve | • |
| | Redox (S5) | | Piedmont Flo | • | . , | • | | drology must be | |
| | d Matrix (S6) | | Red Parent N | viateriai (F2 | 21) (NILR | A 127, 147 |) uniess dis | urbed or probler | natic. |
| | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Preser | t? Yes | No |
| Remarks: | | | | | | | · | | |
| | | | | | | | | | |



Photo 1 Upland data point wpoe009_u facing south



Photo 2 Upland data point wpoe009_u facing north

| Project/Site: Atlantic Coast Pipeline | City/County: P | ocahontas County | _ Sampling Date: 5/11/2016 |
|-----------------------------------------------------------------------|----------------------|-----------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa401e_w |
| Investigator(s): GB, SA | Section, Town | ship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): <u>swale</u> | | ave, convex, none): <u>concave</u> | Slope (%): <u>7</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.303</u> | 85462 | Long: <u>-79.87579806</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: None |
| Are climatic / hydrologic conditions on the site typical for this tir | me of year? Yes | No (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology sign | ificantly 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 sh | owing sampling | point locations, transects | 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 _ | <u> </u> | No |
|---------------------------------------------------------------------------------------|-------------------------|----------------|---------------------------------------|-------|----------|----|
| Deveenlas | | | | | | |

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 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 | 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) | FAC-Neutral Test (D5) | | | |
| Field Observations: | | | | |
| Curfage Mater Dresent? Nos No Konste (inchas): | | | | |
| Surface Water Present? Yes No 🔽 Depth (inches): | | | | |
| Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): | | | | |
| | Wetland Hydrology Present? Yes No | | | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Ves ✓ No Depth (inches): 0 | · · · | | | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 | · · · | | | |
| 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 inspective 0 0 | · · · | | | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Ves ✓ No Depth (inches): 0 | · · · | | | |
| 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 inspective 0 0 | · · · | | | |
| 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 inspective) | | | | |
| 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 inspective) | | | | |
| 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 inspective) | · · · | | | |
| 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 inspective 0 0 | | | | |
| 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 inspective 0 0 | | | | |
| 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 inspective 0 0 | · · · | | | |

Sampling Point: wpoa401e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|-----------------------------------------------|------------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | |
| · · · · · · · · · · · · · · · · · · · | | | Clarab | 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 | | | | Species Across All Strata: 3 (B) |
| 4 | | | | () |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | . <u> </u> | |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | Tetal Cause | | Total % Cover of: Multiply by: |
| | | = Total Cove | r O | OBL species x 1 =0 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x 2 = 0$ |
| 1. Rhododendron periclymenoides | 2 | Yes | FAC | FAC species 7 x 3 = 21 |
| | | · · <u>· · · · · · · · · · · · · · · · · </u> | | FACU species $0 	 x 4 = 0$ |
| 2 | | · | | |
| 3 | | | | UPL species $0 \times 5 = 0$ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | · | | Prevalence Index = B/A =3 |
| 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 ¹ |
| | 2 | = Total Cove | r | |
| 50% of total cover: 1 | | | 0.4 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex blanda | 3 | Yes | FAC | |
| 2 Dryopteris carthusiana | 2 | Yes | FAC | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| | | | | Deminitions of Four vegetation Strata. |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | · | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | |
| · · · · | 5 | | | 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 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 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 | sneet.) | | | |
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| Profile Desc | cription: (Describe to | the dep | oth needed to docur | nent the | indicator | or confirm | the absence | e of indicators.) |
|----------------------------------------------------------------------------------|---------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth | Matrix | | Redo | x Feature | S | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | 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" |
| | | | | | | | | |
| | | | | | | | | |
| | oncentration, D=Deple | tion RM | -Reduced Matrix M | S-Masker | | | ² Location: P | L=Pore Lining, M=Matrix. |
| Hydric Soil | | | | | | | | ators for Problematic Hydric Soils ³ : |
| Histosol Histic Ej Black Hi Hydroge Stratified C cm Mt Depleted Thick Di Sandy M | | . , | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Depleted Dai Redox Depre Iron-Mangan MLRA 13 | elow Surfa urface (S9 ed Matrix (trix (F3) Surface (F rk Surface essions (F esse Mass |) (MLRA 1 (F2) =6) = (F7) (8) | 47, 148) | 2 148) C F \ | 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) /ery Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Sandy C Sandy F | Gleyed Matrix (S4) Redox (S5) H Matrix (S6) | | Umbric Surfa Diedmont Flo Red Parent N | ace (F13) bodplain S | oils (F19) | (MLRA 14 | 8) we | licators of hydrophytic vegetation and etland hydrology must be present, lless disturbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Type: <u>no</u> | ne | | | | | | | |
| Depth (in | | | | | | | 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 | а | | | | | |
| Landform (hillslope, terrace, etc.): slope | _ocal relief (concave, convex, none): <u></u> | | | | | | |
| Subregion (LRR or MLRA): S Lat: 38.30390558 | B Long:79.87578549 | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | NWI classific | cation: None | | | | | |
| 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 Hydrology significant | tly disturbed? Are "Normal Circumstances" | present? Yes 🖌 No | | | | | |
| Are Vegetation, Soil, or Hydrology naturally p | 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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | <u> </u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|---------------|---------------------------------------|------------------|----|----------|
| Remarks: Upland data point taken adjacent to a sa | 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) |
| Primary Indicators (minimum of one is required; check all that apply) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) No ✓ | Wetland Hydrology Present? Yes No |
| | · · |
| Remarks: no hydrology indicators present | |
| | |
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Sampling Point: wpoa401_u

| | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|-----------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | % Cover | | Status | |
| 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: 10 (B) |
| 4. This should be a construction of the should be a constructed by the should be a constru | 5 | No | FACU | Percent of Dominant Species |
| 5. Nobilia pseudoacacia | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | 75 | | | Total % Cover of: Multiply by: |
| 07.0 | | = Total Cove | | |
| 50% of total cover: <u>37.5</u> | 20% of | total cover: | 15 | 0 0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x 2 = 00$ |
| 1. Pinus strobus | 15 | Yes | FACU | rac species x 3 = |
| 2. Rhododendron periclymenoides | 5 | Yes | FAC | FACU species65 x 4 =60 |
| _{3.} Hamamelis virginiana | 5 | Yes | FACU | UPL species x 5 =100 |
| 4. Acer rubrum | 5 | Yes | FAC | Column Totals:118 (A)459 (B) |
| 5. Gaylussacia baccata | 5 | Yes | FACU | 2.00 |
| 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 | 37 | | <u> </u> | 3 - Prevalence Index is $≤3.0^1$ |
| 50% of total cover: 18.5 | | = Total Cove | er 7.4 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | 2 | ., | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Gaultheria procumbens | 3 | Yes | FACU | |
| 2. Carex blanda | 3 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | - |
| 6. | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| 8 | | | | |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 10. | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. |
| 11 | | | | |
| 11 | 6 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 50% of total cover: ³ | | = Total Cove total cover: | | of size, and woody plants less than 3.28 ft tall. |
| | 20% 01 | iolal cover. | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1 | | <u> </u> | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | . <u> </u> | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cove | er | 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.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docun | nent the i | ndicator | or confirm | the absence | of indicato | ors.) | | |
|--------------------------|-----------------------|-----------------------------------------|--------------------|--------------|----------------------|------------------|-------------------------------------------------------------|--------------|---------------|----------|--------------------|
| Depth | Matrix | | Redo | x Features | 6 | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | 6 | |
| 0-2 | 10YR 2/1 | 100 | | | | | L | | | | |
| 2-5 | 10YR 3/2 | 100 | | | | | L | | | | |
| 5-13 | 10YR 5/2 | 35 | | | | | CL | mixed ma | trix | | |
| | 10YR 5/6 | 65 | | | | | CL | rock at 13 | | | |
| | | | | | | | | | | | |
| | | | | | | · | | | | | |
| <u> </u> | | | | | | · | · | | | | |
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| | | | | | | <u> </u> | | | | | |
| ¹ Turnet: C-C | oncentration, D=Depl | otion PM- | Poducod Motrix M | -Maakad | Sond Cr | | ² Location: D | | og M_Motri | ~ | |
| Hydric Soil | | | Reduced Matrix, Ma | S=IVIASKEU | Sanu Gra | 1115. | ² Location: P | | oblematic I | | ile ³ . |
| Histosol | | | Dark Surface | (S7) | | | | | 10) (MLRA | - | |
| | pipedon (A2) | | Polyvalue Be | | ce (S8) (N | II RA 147. | | • | Redox (A16 | | |
| | istic (A3) | | Thin Dark Su | | . , . | | | (MLRA 14 | | ., | |
| | en Sulfide (A4) | | Loamy Gleye | • • • | • | ,, | P | • | odplain Soil | s (F19) | |
| | d Layers (A5) | | Depleted Mat | , | -) | | · | (MLRA 13 | | 0 (1 10) | |
| | uck (A10) (LRR N) | | Redox Dark \$ | . , | 6) | | V | • | • | (TF12) | |
| | d Below Dark Surface | Δ11) | Depleted Dark | , | , | | Very Shallow Dark Surface (TF12) Other (Explain in Remarks) | | | | |
| · | ark Surface (A12) | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Redox Depre | | | | | | in in reeman | (0) | |
| | Aucky Mineral (S1) (L | | Iron-Mangan | | | | | | | | |
| - | A 147, 148) | , | MLRA 13 | | 55 (I IZ) (I | , | | | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | MI PA 13 | 6 122) | ³ Ind | icators of h | /drophytic ve | addation | and |
| | Redox (S5) | | Piedmont Flo | · · · | | | | - | logy must be | - | anu |
| | d Matrix (S6) | | Red Parent N | • | . , | • | | • | ed or proble | • | |
| | Layer (if observed): | | | naterial (FA | | A 127, 147 | | | | malic. | |
| Type: nc | | | | | | | | | | | |
| Type: Depth (in | | | | | | | Hydric Soil | Brosont? | Yes | No | ~ |
| | uico). | | | | | | Hyunc 301 | i resent? | 169 | | |
| 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: Poc | cahontas County | Sampling Date: 5/12/2016 | | | | | |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------|----------------------------|--|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe011e_w | | | | | |
| Investigator(s): CG, KO | Section, Townsh | ip, Range: <u>No PLSS in this area</u> | | | | | | |
| Landform (hillslope, terrace, etc.): toeslope | | e, convex, none): <u>concave</u> | Slope (%): <u>2</u> | | | | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> | 3.30149467 | _ Long: <u>-79.87310703</u> | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | | NWI classific | ation: PEM | | | | | |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>/</u> No (If no, explain in Remarks.) | | | | | | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" p | oresent? Yes 🖌 No | | | | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any answe | rs in Remarks.) | | | | | |
| | | | | | | | | |

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

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

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No 🖌 Depth (inches): | |
| 2 | |
| Water Table Present? Yes <u>V</u> No Depth (inches): 2 | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u>V</u> No |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe) | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Ø Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection) | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |
| Saturation Present? Yes ✓ No Depth (inches):0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | |

Sampling Point: wpoe011e_w

| , , , , , , , , , , , , , , , , , , , | Abaaluta | - Dominant I | ndicator | Dominance Test worksheet |
|---------------------------------------------------------|---------------------|---------------------------------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size:30) | Absolute % Cover | Dominant I Species? | | Dominance Test worksheet: |
| | 5 | Yes | FACW | Number of Dominant Species |
| 1. Fraxinus pennsylvanica | 0 | 165 | | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 0 (B) |
| 4 | | | | Demonst of Deminerat Creation |
| 5 | | | | Percent of Dominant Species |
| | | · | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | | | |
| | 5 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total access 25 | | | 1 | OBL species <u>60</u> x 1 = <u>60</u> |
| 50% of total cover: 2.5 | 20% 0 | total cover: | <u> </u> | <u> </u> |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FAC w species $x 2 = $ |
| 1. Prunus serotina | 2 | Yes | FACU | FAC species x 3 =0 |
| Pinus strobus | 2 | Yes | FACU | FACU species 14 x 4 = 56 |
| 2. 1 11/03 30 00 03 | | 163 | 1700 | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals: 79 (A) 126 (B) |
| 4 | | | | |
| 5 | | . <u></u> | | Prevalence Index = B/A =1.59 |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | · . <u></u> | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9. | | | | |
| 9 | 4 | | | <u> </u> 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 2 | 20% of | total cover: | 0.8 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| Carex prasina | 35 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Carex vulpinoidea | 25 | Yes | OBL | |
| 3. Viola adunca | 20 | Yes | | ¹ Indicators of hydric soil and wetland hydrology must |
| | 10 | · | FAOL | be present, unless disturbed or problematic. |
| 4. Cardamine concatenata | 10 | No | FACU | 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> | | 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: 45 | 20% of | total cover: | 18 | |
| Woody Vine Stratum (Plot size: 30) | | _ | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. none | 0 | . <u></u> | | |
| 2 | | | | |
| | | | | |
| 3 | | · | | |
| 4 | | | | I huden a hudin |
| 5 | | | | Hydrophytic |
| | | · <u> </u> | | Vegetation Present? Yes V No |
| | 0 | = Total Cove | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | hoot) | | | |
| Remarks. (include photo numbers here of on a separate s | neet.) | | | |
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| | cription: (Describe to | o the dep | | | | or confirn | n the absence | e of indicators.) | | |
|------------------------|--------------------------|-----------|--------------------|--------------|--------------------|------------------|----------------------------------|----------------------------------------------------|--|--|
| Depth | Matrix | | | x Feature | | . 2 | _ | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | | <u>Type</u> | Loc ² | Texture | Remarks | | |
| 0-16 | 10YR 5/1 | 85 | 7.5YR 5/8 | 15 | С | M | SIC | | | |
| | | | | | | | | | | |
| | | | | | | | | - | | |
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| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | tion, RM | =Reduced Matrix, M | S=Masked | d Sand Gra | ains. | ² Location: | PL=Pore Lining, M=Matrix. | | |
| Hydric Soil | | | | | | | | cators for Problematic Hydric Soils ³ : | | |
| Histoso | l (A1) | | Dark Surface | e (S7) | | | : | 2 cm Muck (A10) (MLRA 147) | | |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfa | ice (S8) (N | ILRA 147, | | Coast Prairie Redox (A16) | | |
| Black H | istic (A3) | | Thin Dark Su | | | | | (MLRA 147, 148) | | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (| (F2) | | | Piedmont Floodplain Soils (F19) | | |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) | | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | =6) | | Very Shallow Dark Surface (TF12) | | | |
| Deplete | d Below Dark Surface | (A11) | Depleted Da | rk Surface | e (F7) | | Other (Explain in Remarks) | | | |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F | 8) | | | | | |
| Sandy I | Mucky Mineral (S1) (LI | RR N, | Iron-Mangan | ese Mass | es (F12) (| LRR N, | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | |
| Sandy (| Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) | (MLRA 13 | 6, 122) | ³ In | dicators of hydrophytic vegetation and | | |
| Sandy I | Redox (S5) | | Piedmont Flo | odplain S | Soils (F19) | (MLRA 14 | 48) w | retland hydrology must be present, | | |
| Stripped | d Matrix (S6) | | Red Parent M | /laterial (F | 21) (MLR | A 127, 147 | 7) u | nless disturbed or problematic. | | |
| Restrictive | Layer (if observed): | | | | | | | | | |
| Туре: | | | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric So | il Present? Yes 🖌 No | | |
| Remarks: | , | | | | | | | | | |
| Nomano. | | | | | | | | | | |
| 1 | | | | | | | | | | |



Wetland data point wpoe011e_w facing north



Wetland data point wpoe011e_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Po | ocahontas County | _ Sampling Date: 5/12/2016 | | | | | |
|---------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------|----------------------------|--|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe011_u | | | | | |
| Investigator(s): CG, KO | Section, Towns | hip, Range: No PLSS in this are | a | | | | | |
| Landform (hillslope, terrace, etc.): toeslope | | ve, convex, none): <u>convex</u> | · - | | | | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: | 38.30153297 | Long: <u>-79.87307612</u> | Datum: WGS 1984 | | | | | |
| Soil Map Unit Name: | | NWI classif | ication: UPL | | | | | |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) | | | | | | | | |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No | | | | | |
| Are Vegetation, Soil, or Hydrology | naturally problematic? | (If needed, explain any 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 | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | <u>~</u> |
|---------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | | |

| 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 | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Depth (inches): | Wetland Hydrology Present? Yes No |
| Remarks: | |

Sampling Point: wpoe011_u

| | Absolute | Dominant Ir | adicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | | Status | |
| 1. Quercus alba | 60 | Yes | FACU | Number of Dominant Species |
| | 10 | No | FACU | That Are OBL, FACW, or FAC: (A) |
| 2. Pinus strobus | | NO | TACU | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 4 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 25 (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| ·· | 70 | | | Total % Cover of: Multiply by: |
| 25 | | = Total Cover | r 14 | OBL species 0 x 1 =0 |
| 50% of total cover: <u>35</u> | 20% of | total cover: | 14 | 0 |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species x 2 = |
| 1. Pinus strobus | 70 | Yes | FACU | FAC species $5 \times 3 = 15$ |
| 2. Hamamelis virginiana | 15 | No | FACU | FACU species 170 x 4 = 680 |
| | | | | |
| 3. Vaccinium angustifolium | 10 | No | FACU | UPL species x 5 = |
| 4 | | | | Column Totals:175 (A)695 (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A = 3.97 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| _ | | . <u></u> | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 95 | = Total Cover | r | |
| 50% of total cover: 47.5 | | total cover: | 19 | 4 - Morphological Adaptations ¹ (Provide supporting |
| - | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| _{1.} Prunus serotina | 5 | Yes | FACU | |
| 2. Acer rubrum | 5 | Yes | FAC | |
| | | | | ¹ 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 | | · | | 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. |
| | | | | ů |
| | | | | 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. | | | | |
| | 10 | | | Herb – All herbaceous (non-woody) plants, regardless |
| - | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 5 | 20% of | total cover: | 2 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | noight. |
| | | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | <u> </u> | | Vegetation |
| | 0 | = Total Cover | r | Present? Yes No V |
| 50% of total cover: 0 | | total cover: | <u>^</u> | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Desc | cription: (Describe to | o the depth | n needed to docur | nent the in | dicator o | or confirm | the absence o | of indicato | rs.) | |
|--------------|-----------------------------|-------------|-------------------|--------------|-------------------|------------------|----------------------------|-------------|------------------------------|----------------------------|
| Depth | Matrix | | Redo | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | <u> </u> |
| 0-2 | 10YR 4/3 | 100 | | | | | SICL | | | |
| 2-16 | 10YR 5/6 | 100 | | | | | SICL | | | |
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| | | | | | | | | | | |
| | oncentration, D=Deple | tion PM- | Poducod Matrix M | -Mackad | Sand Gr | inc | ² Location: PL= | -Poro Linii | a M-Matrix | |
| Hydric Soil | | π | | S=IVIASKEU | Sanu Gra | uns. | | | | ydric Soils ³ : |
| Histosol | | | Dark Surface | (\$7) | | | | | (MLRA | - |
| | pipedon (A2) | | Polyvalue Be | . , | e (S8) (M | LRA 147. | | | Redox (A16) | |
| | istic (A3) | | Thin Dark Su | | | | · | (MLRA 14 | . , | , , |
| | en Sulfide (A4) | | Loamy Gleye | • • | • | | Pie | edmont Flo | odplain Soils | s (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 13 | 6, 147) | |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark | Surface (F6 | 5) | | | • | Dark Surfac | · , |
| | d Below Dark Surface | (A11) | Depleted Date | | ` ' | | Oth | ner (Explai | n in Remarks | s) |
| | ark Surface (A12) | | Redox Depre | | , | | | | | |
| | Mucky Mineral (S1) (LI | RR N, | Iron-Mangan | | s (F12) (I | _RR N, | | | | |
| | A 147, 148) | | MLRA 13 | | | | 31 | | | and a flam and a |
| - | Gleyed Matrix (S4) | | Umbric Surfa | | | | | - | drophytic ve | - |
| | Redox (S5) d Matrix (S6) | | Piedmont Flo | | | | | • | ogy must be ed or problem | |
| | Layer (if observed): | | | nateriai (F2 | | 4 127, 147 |) unie | | | |
| | , | | | | | | | | | |
| Type: | | | | | | | | | Vee | |
| Depth (in | ches): | | | | | | Hydric Soil F | resent? | Yes | No |
| Remarks: | | | | | | | | | | |
| | | | | | | | | | | |



Upland data point wpoe011_u facing north



Upland data point wpoe011_u facing south

| Project/Site: Atlantic Coast Pipeline | City/County: F | Pocahontas County | Sampling Date: 7/15/2016 | |
|--------------------------------------------------------------|--------------------------|-----------------------------------------|----------------------------|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy007e_w | |
| Investigator(s): KO, AS | Section, Town | ship, Range: <u>No PLSS in this are</u> | | |
| Landform (hillslope, terrace, etc.): Valley | | ave, convex, none): <u>concave</u> | Slope (%): <u>0</u> | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>3</u> | 8.16493117 | Long: <u>-79.97738607</u> | Datum: WGS 1984 | |
| Soil Map Unit Name: Lobdell silt loam | | NWI classifi | cation: PEM | |
| Are climatic / hydrologic conditions on the site typical for | this time of year? Yes | No (If no, explain in I | 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 answ | ers in Remarks.) | |
| | | noint locations transact | - immentent feeturee ete | |

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, 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: | | | | | |
| Wetland data point taken in a concave | depression on a | floodplain with distu | rbed vegetation. | | |
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| 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 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 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 <u>/</u> No Depth (inches): <u>3</u> | |
| Water Table Present? | Yes 🖌 No Depth (inches):4 | |
| Saturation Present? | Yes <u>/</u> No Depth (inches): 0 | Wetland Hydrology Present? Yes 🖌 No |
| (includes capillary fringe) | | |
| Describe Recorded Data (stre | eam gauge, monitoring well, aerial photos, previous inspect | tions), it available: |
| Remarks: | | |
| Remarks. | | |
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Sampling Point: Wpoy007e_w

| | Absolute | Dominant I | adicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|----------------|----------|--------------------------------------------------------------------------------------|
| Tree Stratum (Plot size:0) | | Species? | | |
| 1. none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) |
| | | | | 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 | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | | Total % Cover of: Multiply by: |
| | | | 0 | OBL species 30 x 1 = 30 |
| 50% of total cover: 0 | 20% of | total cover: | • | 70 110 |
| Sapling/Shrub Stratum (Plot size:) | | | | PACIVI species $x_2 = 0$ |
| 1. none | 0 | | | FAC species $x 3 = $ |
| | | · | | FACU species x 4 =0 |
| 2 | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | 100 170 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | |
| 6 | | | | Prevalence Index = B/A =1.7 |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | · | <u> </u> | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cove | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 0 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 0) | | | | |
| 1. Echinochloa muricata | 30 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Poa palustris | 20 | Yes | FACW | |
| 3. Carex vulpinoidea | 15 | No | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| | | · | | be present, unless disturbed or problematic. |
| 4. Eleocharis palustris | 15 | No | OBL | Definitions of Four Vegetation Strata: |
| 5Agrostis gigantea | 10 | No | FACW | , C |
| 6. Persicaria pensylvanica | 5 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 Juncus effusus | 5 | No | FACW | more in diameter at breast height (DBH), regardless of |
| 7 | | | TACW | height. |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | · | ······ | m) tall. |
| 10 | | · | ······ | |
| 11 | | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| ······································ | 0 | | | height. |
| 1. none | 0 | · | | |
| 2 | | <u></u> . | | |
| 3 | | _ | _ | |
| | | | <u> </u> | |
| 4 | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cove | r | Present? Yes V No |
| 50% of total cover: 0 | | total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | | ····· <u>·</u> | | |
| Remarks: (include photo numbers here of on a separate s | neet.) | | | |
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| | cription: (Describe t | o the dep | | | | or confirm | the absence of i | ndicators.) | |
|-------------------------|---------------------------------------------|---------------|----------------------------|----------------|-------------------------------|------------------|-------------------------------------------------------------|----------------------------------|--|
| Depth (inchoo) | Matrix | % | | x Features | | Loc ² | Toyturo | Demortes | |
| <u>(inches)</u> 0-18 | <u>Color (moist)</u> 2.5Y 5/1 | <u></u> 80 | Color (moist) 7.5YR 4/6 | <u>%</u> 20 | <u>Type</u> ¹ C | PL/M | Texture SIC | Remarks | |
| 0-18 | 2.51 5/1 | | 7.511 4/0 | | 0 | | | | |
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| | Concentration, D=Depl | etion, RM | =Reduced Matrix, M | S=Masked | I Sand Gra | ains. | | ore Lining, M=Matrix. | |
| • | Indicators: | | | | | | | s for Problematic Hydric Soils | |
| Histoso | . , | | Dark Surface | | | | | Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | | | | | t Prairie Redox (A16) | |
| | Histic (A3) | | Thin Dark Su | | | 47, 148) | • | LRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | F2) | | | nont Floodplain Soils (F19) | |
| | ed Layers (A5) | | ✓ Depleted Ma | , , | | | • | LRA 136, 147) | |
| | luck (A10) (LRR N) | (| Redox Dark | • | , | | Very Shallow Dark Surface (TF12) Other (Explain in Remarks) | | |
| | ed Below Dark Surface Dark Surface (A12) | (ATT) | Depleted Da Redox Depre | | | | | (Explain in Remarks) | |
| | Mucky Mineral (S1) (L | | Iron-Mangan | | | | | | |
| - | A 147, 148) | ΛΛ Ν , | MLRA 13 | | es (F12) (| LNN N, | | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | MI R 4 13 | 6 122) | ³ Indicate | ors of hydrophytic vegetation an | |
| - | Redox (S5) | | Piedmont Flo | | | | | d hydrology must be present, | |
| | d Matrix (S6) | | Red Parent I | • | . , | • | • | disturbed or problematic. | |
| | Layer (if observed): | | | | / (| , | | | |
| Type: | | | | | | | | | |
| Depth (ir | achoc): | | | | | | Hydric Soil Pre | sent? Yes 🖌 No | |
| | iciies). | | | | | | Hyunc Soil Pre | Sent: 165 NO | |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |



Wetland data point wpoy007e_w facing east



Wetland data point wpoy007e_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | Sampling Date: 7/15/2016 | |
|-------------------------------------------------------------------|------------------------|----------------------------------------|---------------------------|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy007_u | |
| Investigator(s): KO, AS | Section, Townsh | nip, Range: <u>No PLSS in this are</u> | a | |
| Landform (hillslope, terrace, etc.): Valley | | e, convex, none): <u>none</u> | Slope (%): <u>0</u> | |
| Subregion (LRR or MLRA): S Lat: 38.16 | 6499285 | Long:79.97739242 | Datum: WGS 1984 | |
| Soil Map Unit Name: | | NWI classif | ication: UPLAND | |
| 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 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 floodplain in a | active hayfield | with disturbed veget | ation. | | |
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| 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 | 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) | 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): (includes capillary fringe) | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| Deveele | |
| Remarks: | |
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Sampling Point: Wpoy007_u

| | Abaabata | Descionant la | Pastan | Deminence Test workshot |
|---------------------------------------------------------|---------------------|-------------------------|--------|-------------------------------------------------------------------|
| Tree Stratum (Plot size:0_) | Absolute % Cover | Dominant Ir Species? | | Dominance Test worksheet: |
| 1. none | 0 | opecies: | Status | Number of Dominant Species |
| 1. <u></u> | | · · | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:2 (B) |
| 1 | | | | |
| - | | · · | | Percent of Dominant Species |
| 5 | | · · | | That Are OBL, FACW, or FAC: 50 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species0 x 1 =0 |
| 0 | 20 /0 01 | total cover. | | FACW species 0 x 2 = 0 |
| Sapling/Shrub Stratum (Plot size: 0) | 0 | | | 25 75 |
| 1. none | 0 | · · | | FAC species 25 $x_3 = 75$ |
| 2 | | | | FACU species $x 4 = $ |
| 3 | | | | UPL species25 x 5 =125 |
| | | | | Column Totals:(A)(B) |
| 4 | | | | |
| 5 | | · · | | Prevalence Index = B/A =4 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | · · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · · | | 2 - Dominance Test is >50% |
| 9 | | · · | | 3 - Prevalence Index is $≤3.0^1$ |
| | 0 | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| 1 Trifolium pratense | 30 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| •• | | · · | | |
| 2. Ranunculus hispidus | 25 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Plantago lanceolata | 15 | No | UPL | be present, unless disturbed or problematic. |
| 4. Plantago major | 10 | No | FACU | |
| 5. Taraxacum officinale | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| | | · · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Galinsoga parviflora | 5 | No | UPL | more in diameter at breast height (DBH), regardless of |
| 7. Cirsium discolor | 5 | No | UPL | height. |
| 8 | | | | |
| _ | | - <u></u> - | | Sapling/Shrub – Woody plants, excluding vines, less |
| | | · · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | · · | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| , | 0 | | | height. |
| 1. none | | · · | | |
| 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.) | | | |
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| Profile Desc | cription: (Describe to | o the dep | th needed to docur | nent the i | ndicator o | or confirm | the absence of | indicators.) |
|--------------|---------------------------------|------------|-----------------------------|--------------------|-------------------|------------------|---------------------|--------------------------------------------------------|
| Depth | Matrix | | Redo | x Features | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> | Type ¹ | Loc ² | Texture | Remarks |
| 0-18 | 7.5YR 4/2 | 95 | 10YR 4/4 | 5 | С | М | SIC | |
| | | | | | | | | |
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| 1 | | | | | | | 2 | |
| | oncentration, D=Deple | etion, RM= | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | | Pore Lining, M=Matrix. |
| Hydric Soil | | | | (07) | | | | rs for Problematic Hydric Soils ³ : |
| Histosol | () | | Dark Surface | · , | | | | n Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | · / · | | · | st Prairie Redox (A16) |
| | istic (A3) en Sulfide (A4) | | Thin Dark Su Loamy Gleye | . , | • | 47, 140) | • | /ILRA 147, 148) Imont Floodplain Soils (F19) |
| | d Layers (A5) | | Loany Gleye | | ΓΖ) | | | MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | . , | 6) | | • | / Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Dail | | , | | | er (Explain in Remarks) |
| | ark Surface (A12) | (,) | Redox Depre | | | | | |
| | /lucky Mineral (S1) (L l | RR N. | Iron-Mangan | | , | RR N. | | |
| | A 147, 148) | | MLRA 13 | | · / · | , | | |
| Sandy G | Gleyed Matrix (S4) | | Umbric Surfa | ice (F13) (| MLRA 13 | 6, 122) | ³ Indica | tors of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | odplain S | oils (F19) | (MLRA 14 | 8) wetla | nd hydrology must be present, |
| Stripped | l Matrix (S6) | | Red Parent M | Material (F | 21) (MLR | A 127, 147 | ') unles | s disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Pr | resent? Yes 🖌 No |
| Remarks: | | | | | | | 1 | |
| | | | | | | | | |
| | | | | | | | | |



Upland data point wpoy007_u facing northeast



Upland data point wpoy007_u facing northwest

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | _ Sampling Date: 7/14/2016 |
|-----------------------------------------------------------------|--------------------------|----------------------------------------|------------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy005e_w 1 |
| Investigator(s): KO, AS | Section, Townsh | nip, Range: <u>No PLSS in this are</u> | a |
| Landform (hillslope, terrace, etc.): Valley | | e, convex, none): <u>concave</u> | Slope (%):0 |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> | .1663629 | Long:79.97430512 | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | ication: PEM |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in I | 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 answ | ers in Remarks.) |
| CLIMMADY OF FINDINGS Attack site man | chowing compling p | aint locationa transact | a important factures ato |

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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|-----------------------|---------------------------------------|-------|----|
| Remarks: | | | | | | |
| Wetland data point taken on floodplain in | active | hayfield | d with disturbed vege | etation. | | |
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| 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 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 Sc | 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) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes 🖌 No Depth (inches): 4 | |
| Water Table Present? Yes <u></u> | |
| Saturation Present? Yes <u><</u> No <u>Depth</u> (inches): 0 | Wetland Hydrology Present? Yes <u>/</u> No |
| | |
| (includes capillary fringe) | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |

Sampling Point: Wpoy005e_w 1

| | Absolute | Dominant Ir | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | | | |
| 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 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | 0 | · | | Total % Cover of: Multiply by: |
| | | = Total Cover | | 70 70 |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: 0) | | | | FACW species $x^2 = 0$ |
| 1. none | 0 | | | FAC species $x^3 = $ |
| 2 | | | | FACU species x 4 =0 |
| | | · | | UPL species $0 	 x 5 = 0$ |
| 3 | | · | | 100 130 |
| 4 | · | · | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = B/A =1.3 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | · | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 0 | = Total Cover | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 0) | | | | data in Remarks or on a separate sheet) |
| 1. Carex lurida | 30 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Juncus effusus | 30 | Yes | FACW | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Scirpus atrovirens | 20 | Yes | OBL | be present, unless disturbed or problematic. |
| 4. Persicaria hydropiper | 10 | No | OBL | Definitions of Four Vegetation Strata: |
| 5. Carex vulpinoidea | 10 | No | OBL | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | | | lioight |
| 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 | | . <u> </u> | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| 1. none | 0 | | | |
| | | | | |
| 2 | | | | |
| 3 | | · | | |
| 4 | | | | Hydrophytic |
| 5 | | . <u> </u> | | Vegetation |
| | 0 | = Total Cover | | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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| Profile Desc | cription: (Describe to | o the dep | oth needed to docur | nent the i | ndicator o | or confirm | n the absence o | of indicators.) |
|--------------|--------------------------------|---------------|---------------------|---------------|-------------------|------------------|--------------------|------------------------------------------------------------------|
| Depth | Matrix | | Redo | x Features | 5 | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-5 | 10YR 4/2 | 90 | 7.5YR 4/6 | 10 | С | М | SIC | |
| 5-18 | 2.5Y 5/2 | 90 | 7.5YR 4/6 | 10 | С | М | SIC | |
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| | oncentration, D=Deple | etion, RM | =Reduced Matrix, M | S=Masked | Sand Gra | ains. | | =Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indicat | tors for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | e (S7) | | | 2 c | cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | ow Surface | ce (S8) (M | LRA 147, | 148) Co | oast Prairie Redox (A16) |
| Black H | istic (A3) | | Thin Dark Su | urface (S9) | (MLRA 1 | 47. 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | | , -, | | edmont Floodplain Soils (F19) |
| | d Layers (A5) | | ✓ Depleted Ma | , | • _/ | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | . , | 6) | | | ry Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Da | | | | | her (Explain in Remarks) |
| - | ark Surface (A12) | (/(11) | Redox Depre | | | | 0 | |
| | /lucky Mineral (S1) (LI | | Iron-Mangan | | , | | | |
| | A 147, 148) | ΝΝ Ν , | MLRA 13 | | 55 (F12) (| -nn n, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | MI DA 12 | 6 100) | ³ India | cators of hydrophytic vegetation and |
| | | | Piedmont Flo | | | | | |
| | Redox (S5) I Matrix (S6) | | Red Parent I | • | , , | • | • | land hydrology must be present, ess disturbed or problematic. |
| | Layer (if observed): | | | vialeriai (F. | | 4 127, 147 | r) unie | |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil F | Present? Yes 🖌 No |
| Remarks: | , | | | | | | | |
| rtemanto. | | | | | | | | |
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Wetland data point wpoy005e_w1 facing southwest



Wetland data point wpoy005e_w1 facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Poc | ahontas County | _ Sampling Date: 7/15/2016 |
|--------------------------------------------------------|--------------------------------|--------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy005e_w2 |
| Investigator(s): KO, AS | Section, Townshi | p, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): Valley | | , convex, none): <u>concave</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S | Lat: <u>38.16674063</u> | Long: <u>-79.97761739</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: PEM |
| Are climatic / hydrologic conditions on the site typic | cal for this time of year? Yes | No (If no, explain in I | 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 answ | ers in Remarks.) |
| SUMMARY OF EINDINGS Attach ait | o man chawing compling no | int locations transact | a important factures ato |

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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|-----------------------|---------------------------------------|-----|----|
| Remarks: | | | | | | |
| Wetland data point taken on floodplain in | n active | hayfield | d with disturbed vege | etation. | | |
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| 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 Ro | ots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils | (C6) Crayfish Burrows (C8) |
| ✓ Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <u>/</u> No Depth (inches): 2 | |
| Water Table Present? Yes <u>/</u> No Depth (inches): 0 | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 | Vetland Hydrology Present? Yes <u>/</u> No |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | ns), if available: |
| Remarks: | |
| Remains. | |
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Sampling Point: <u>Wpoy005e_w2</u>

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1. none | 0 | | Olalus | 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 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | | | | Total % Cover of: Multiply by: |
| | 0 | = Total Cover | r | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Blat aiza) | | | | FACW species $x ={50}$ |
| Sapling/Shrub Stratum (Plot size: 0) | 0 | | | 25 75 |
| 1. none | 0 | | | FAC species 23 $x_3 = 75$ |
| 2 | | | | FACU species $x 4 = $ |
| | | | | UPL species x 5 =0 |
| 3 | | | | 100 175 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index $= B/A = 1.75$ |
| | | | | Prevalence Index = $B/A = 1.75$ |
| 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 | r | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations (Provide supporting |
| | | | | data in Remarks or on a separate sheet) |
| | 25 | | 540 | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Festuca paradoxa | 25 | Yes | FAC | · · · · · · · · · · · · · · · · · |
| 2. Scirpus atrovirens | 25 | Yes | OBL | |
| 3. Carex vulpinoidea | 20 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4. Juncus effusus | 15 | No | FACW | Definitions of Four Vegetation Strata: |
| 5. Lysimachia nummularia | 10 | No | FACW | |
| 6. Eleocharis palustris | 5 | No | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Lieochans palusins | | | | 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 | | | | |
| 10 | | | | m) tall. |
| | | | | , |
| 10 | 100 | | | Herb – All herbaceous (non-woody) plants, regardless |
| 11 | | = Total Cover | | , |
| | | = Total Cover total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 11 | 20% of | | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 11 | 20% of | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 11 | 20% of | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0) 1. | 20% of | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. none) 2. 3. | 20% of | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0) 1. none 2. 3. 3. 4. | 20% of 0 | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. none) 2. 3. | 20% of 0 | total cover: | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0) 1. none 2. 3. 3. 4. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |
| 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 0)) 1. | 20% of | total cover: | 20 | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation |

| Depth <u>Matrix</u> | | Redo | x Feature | S | | | | |
|---------------------|-----------------------|------------|---------------------|------------------|-------------------|------------------|-------------------------|------------------------------------------------------------------|
| inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-18 | 7.5YR 4/1 | 85 | 7.5YR 4/6 | 15 | С | М | SIC | |
| | | | | | | | | |
| | | | | | | | | |
| | Concentration, D=Depl | letion, RM | I=Reduced Matrix, M | S=Maskec | Sand Gra | ains. | | e Lining, M=Matrix. for Problematic Hydric Soils ³ |
| Histoso | | | Dark Surface | e (S7) | | | | uck (A10) (MLRA 147) |
| _ | Epipedon (A2) | | Polyvalue Be | | ce (S8) (N | ILRA 147. | | Prairie Redox (A16) |
| _ | listic (A3) | | Thin Dark Su | | · / · | | · | RA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | , , | • | | • | ont Floodplain Soils (F19) |
| Stratifie | ed Layers (A5) | | Depleted Ma | trix (F3) | , | | (MLF | RA 136, 147) |
| _ | luck (A10) (LRR N) | | Redox Dark | . , | -6) | | • | nallow Dark Surface (TF12) |
| | ed Below Dark Surface | e (A11) | Depleted Da | rk Surface | (F7) | | | Explain in Remarks) |
| | Dark Surface (A12) | · · · | Redox Depre | | | | 、 | , |
| | Mucky Mineral (S1) (L | .RR N. | Iron-Mangan | | , | LRR N. | | |
| - | A 147, 148) | , | MLRA 13 | | ()(| | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , ace (F13) (| MLRA 13 | 6, 122) | ³ Indicators | s of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | | | | | hydrology must be present, |
| | d Matrix (S6) | | Red Parent I | • | . , | • | • | isturbed or problematic. |
| | Layer (if observed): | | | , | , (| , | | |
| Type: | , | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Prese | ent? Yes 🖌 No |
| emarks: | | | | | | | | |
| | | | | | | | | |



Wetland data point wpoy005e_w2 facing northwest



Wetland data point wpoy005e_w2 facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | _ Sampling Date: 7/15/2016 |
|------------------------------------------------------------------------|-------------------|------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy005e_w3 |
| Investigator(s): KO, AS | Section, Tow | nship, Range: <u>No PLSS in this are</u> | ea |
| Landform (hillslope, terrace, etc.): Valley | | cave, convex, none): <u>concave</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S Lat: 38.16821 | 328 | Long: <u>-79.97553387</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | fication: PEM |
| 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 | Illy problematic? | (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | 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 |
|---------------------------------------------------------------------------------------|-----------------|-----------------------|---------------------------------------|----------|----------|------------|
| Remarks: | | | | | | |
| Wetland data point taken on floodplain in | active hayfield | I with disturbed vege | tation. Wetland point is in the | location | n of a m | apped NWI. |

| 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 R | oots (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 | s (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 <u>V</u> No Depth (inches): <u>3</u> | |
| Water Table Present? Yes <u><</u> No <u>Depth</u> (inches): 0 | |
| | Wetland Hydrology Present? Yes 🖌 No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | nne) if available: |
| Describe Recorded Data (stream gauge, monitoring well, aenai photos, previous inspectic | |
| Remarks: | |
| | |
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Sampling Point: Wpoy005e_w3

| | Absolute | Dominant II | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1, none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) |
| | | · · · · · · · · · · · · · · · · · · · | | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 3 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | | Total % Cover of: Multiply by: |
| | | | 0 | OBL species20 x 1 =20 |
| 50% of total cover: 0 | 20% of | total cover: | <u> </u> | 00 (00 |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species $x = 0$ |
| 1. none | 0 | | | FAC species $x_3 = $ |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | | | 100 180 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =1.8 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | <u></u> | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | · | | 2 - Dominance Test is >50% |
| 9 | 0 | · | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0_) | | | | data in Remarks or on a separate sheet) |
| 1. Eragrostis refracta | 25 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Agrostis gigantea | 20 | Yes | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Leersia oryzoides | 20 | Yes | OBL | be present, unless disturbed or problematic. |
| 4. Juncus effusus | 15 | No | FACW | |
| 5. Carex scoparia | 10 | No | FACW | Definitions of Four Vegetation Strata: |
| | | | | Tree Weedy plents evoluting vince 2 in (7.6 cm) or |
| 6. Lysimachia nummularia | 10 | No | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7 | | | | 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 | | | | |
| 11 | 100 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| | | · | | |
| 2 | | · | | |
| 3 | | · | | |
| 4 | | | | |
| | | · | | Hydrophytic |
| 5 | | · | | Vegetation |
| | | = Total Cove | | Present? Yes Vo No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | | | | |
| Remarks. (include proto numbers here of on a separate s | neet.) | | | |
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| Depth | Matrix | | Redo | x Feature | s | | | |
|-------------|---------------------------------------|-----------|----------------------------------------------|-------------|-------------------|------------------|-----------------------|-----------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-10 | 2.5Y 4/1 | 80 | 5YR 4/6 | 20 | С | М | SIC | |
| 10-18 | 2.5Y 6/1 | 90 | 7.5YR | 10 | С | М | С | |
| | | | | | | | | |
| | Concentration, D=Depl | etion, RM | I=Reduced Matrix, M | S=Maskec | Sand Gra | ains. | | ore Lining, M=Matrix. |
| | l (A1) pipedon (A2) listic (A3) | | Dark Surface Polyvalue Be Thin Dark Su | low Surfa | | | 2 cm 148) Coast | Muck (A10) (MLRA 147) Prairie Redox (A16) .RA 147, 148) |
| Hydrog | en Sulfide (A4) d Layers (A5) | | Loamy Gleye | ed Matrix (| | ,, | Piedm | nont Floodplain Soils (F19) .RA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | • • | -6) | | • | Shallow Dark Surface (TF12) |
| | ed Below Dark Surface | e (A11) | Depleted Da | (| , | | | (Explain in Remarks) |
| | ark Surface (A12) | () | Redox Depre | | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | | _RR N, | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | |
| Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ce (F13) (| (MLRA 13 | 6, 122) | ³ Indicato | ors of hydrophytic vegetation and |
| Sandy I | Redox (S5) | | Piedmont Flo | odplain S | oils (F19) | (MLRA 14 | 18) wetland | d hydrology must be present, |
| Strippe | d Matrix (S6) | | Red Parent I | Material (F | 21) (MLR | A 127, 147 | 7) unless | disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (ir | nches): | | | | | | Hydric Soil Pre | sent? Yes 🖌 No |
| Remarks: | | | | | | | 1 | |



Wetland data point wpoy005e_w3 facing east



Wetland data point wpoy005e_w3 facing southeast

| Project/Site: Atlantic Coast Pipeline | City/County: Poc | ahontas County | Sampling Date: 7/15/2016 |
|-----------------------------------------------------------------------|----------------------|---------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy005_u1 |
| Investigator(s): KO, AS | Section, Townsh | ip, Range: <u>No PLSS</u> in this are | a |
| Landform (hillslope, terrace, etc.): Valley | | e, convex, none): <u>none</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S Lat: 38.166 | 84895 | _ Long: <u>-79.97761375</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this tin | me of year? Yes | No (If no, explain in I | Remarks.) |
| Are Vegetation, Soil, or Hydrology sign | ificantly disturbed? | Are "Normal Circumstances" | present? Yes No _ |
| Are Vegetation, Soil, or Hydrology natu | arally 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 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---------------------------------------------------------------------------------------|--------------------|----------------------|---------------------------------------|-----|------|
| Remarks: | | | · | | |
| Upland data point taken on floodplain in a | active hayfield | with disturbed veget | ation. | | |
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| 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 | 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) | 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/ |
| (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| Remarks: | |
| Kondika. | |
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Sampling Point: Wpoy005_u1

| (| | | | |
|---------------------------------------------------------|---------------------|---------------|--------|-------------------------------------------------------------------|
| | Absolute | Dominant Ir | | Dominance Test worksheet: |
| Tree Stratum (Plot size: 0) | <u>% Cover</u> 0 | Species? | Status | Number of Dominant Species |
| 1. none | • | | | That Are OBL, FACW, or FAC:0 (A) |
| 2 | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 4 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| /· | 0 | · | | Total % Cover of: Multiply by: |
| | | = Total Cover | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size:0) | | | | FACW species x 2 =0 |
| | 0 | | | FAC species 0 x 3 = 0 |
| 1. none | 0 | · | | 65 260 |
| 2 | | | | FACU species $x 4 =$ |
| | | | | UPL species $x = 175$ |
| 3 | | · | | 100 /35 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | 4.05 |
| | | · | | Prevalence Index = B/A = 4.35 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cover | | $_$ 3 - Prevalence Index is $\leq 3.0^1$ |
| 50% of total cover: 0 | | | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% of | total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size:0) | | | | |
| Trifolium pratense | 25 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Phleum pratense | 20 | Yes | FACU | |
| _{3.} Galinsoga parviflora | 15 | Yes | UPL | ¹ Indicators of hydric soil and wetland hydrology must |
| A Plantago lanceolata | 15 | Yes | UPL | be present, unless disturbed or problematic. |
| | | 165 | UFL | Definitions of Four Vegetation Strata: |
| _{5.} Plantago major | 10 | No | FACU | |
| 6. Taraxacum officinale | 10 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | | more in diameter at breast height (DBH), regardless of |
| 7. Cirsium discolor | 5 | No | UPL | 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 | 100 | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. none | 0 | | | |
| 2. | | | | |
| | | · | | |
| 3 | | | | |
| 4 | | | | Hadaan ka da |
| | | | | 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 | neet.) | | | |
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| Profile Des | cription: (Describe t | o the de | pth needed to docur | nent the | indicator | or confirn | n the absence of indicators.) | |
|------------------------|------------------------------------------------------|------------------|----------------------|-----------|-------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Depth | Matrix | | Redo | x Feature | S | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks | |
| 0-4 | 10YR 4/2 | 95 | 7.5YR 3/4 | 5 | С | Μ | SIC | |
| 4-18 | 7.5YR 4/1 | 85 | 7.5YR 3/4 | 15 | С | Μ | SIC | |
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| ¹ Type: C=C | oncentration, D=Deple | etion, RN | I=Reduced Matrix, MS | S=Maske | d Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils | s ³ : |
| Histoso | l (A1) | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | Polyvalue Be | | • • • | | , 148) Coast Prairie Redox (A16) | |
| | istic (A3) | | Thin Dark Su | • | , . | 47, 148) | (MLRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | Piedmont Floodplain Soils (F19) | |
| | d Layers (A5) | | ✓ Depleted Mar | . , | | | (MLRA 136, 147) | |
| | uck (A10) (LRR N) | () | Redox Dark | ` | , | | Very Shallow Dark Surface (TF12) | |
| | d Below Dark Surface | (A11) | Depleted Dar | | | | Other (Explain in Remarks) | |
| | ark Surface (A12) /lucky Mineral (S1) (L l | | Redox Depre | | | | | |
| | A 147, 148) | XIX I N , | MLRA 13 | | | LIXIX IN, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | (MLRA 13 | 6. 122) | ³ Indicators of hydrophytic vegetation an | d |
| | Redox (S5) | | Piedmont Flo | . , | • | | | |
| | d Matrix (S6) | | Red Parent N | • | . , | • | | |
| Restrictive | Layer (if observed): | | | | , . | | | |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Present? Yes 🖌 No | |
| Remarks: | | | | | | | | |
| . tomanto. | | | | | | | | |
| 1 | | | | | | | | |



Upland data point wpoy005_u1 facing southwest



Upland data point wpoy005_u1 facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Pocaho | ntas County | _ Sampling Date: 7/15/2016 |
|---------------------------------------------------------------------|---------------------------|----------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy005_u2 |
| Investigator(s): KO, AS | Section, Township, F | Range: No PLSS in this are | ea |
| Landform (hillslope, terrace, etc.): Valley | Local relief (concave, co | | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.16</u> | 83185 Lo | ong: <u>-79.97567437</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classi | fication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this t | ime of year? Yes 🔽 No | (If no, explain in | Remarks.) |
| Are Vegetation <u>/</u> , Soil , or Hydrology sig | nificantly disturbed? Are | e "Normal Circumstances' | ' present? Yes No |
| Are Vegetation, Soil, or Hydrology nat | turally 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 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---------------------------------------------------------------------------------------|--------------------|----------------------|---------------------------------------|-----|------|
| Remarks: | | | - | | |
| Upland data point taken on floodplain in a | active hayfield | with disturbed veget | ation. | | |
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| 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) | 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> | Wetland Hydrology Present? Yes No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | ions), if available: |
| | |
| Remarks: | |
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Sampling Point: Wpoy005_u2

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|----------------------------------------------------------------------------------------------------------------|----------|--------------|------------|---------------------------------------------------------------------------------------------------------------|
| | Absolute | Dominant I | | Dominance Test worksheet: |
| Tree Stratum (Plot size: 0) | | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: 1 (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: 50 (A/B) |
| 6 | | | | |
| - | | · | | Prevalence Index worksheet: |
| 7 | | · | | Total % Cover of: Multiply by: |
| | 0 | = Total Cove | r | |
| 50% of total cover: 0 | | total cover: | 0 | OBL species 0 x 1 = 0 |
| | 2070.01 | | | FACW species 25 x 2 = 50 |
| Sapling/Shrub Stratum (Plot size: 0) | | | | 16 46 |
| 1. none | 0 | | | FAC species 15 x 3 = 45 |
| | | · . <u></u> | | FACU species 55 x 4 = 220 |
| 2 | | · | | 5 25 |
| 3 | | | | UPL species X 5 = |
| | | | | Column Totals:(A)(A) (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index $= B/A = 3.4$ |
| | | | | Prevalence Index = $B/A = 3.4$ |
| 6 | | · | . <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 0 | = Total Cove | r | |
| 50% of total cover: 0 | | | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 0 | total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size:0) | | | | |
| Trifolium pratense | 30 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Phalaris arundinacea | 25 | Yes | FACW | 1 |
| 3. Dichanthelium clandestinum | 15 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| | <u> </u> | · | | be present, unless disturbed or problematic. |
| 4. Taraxacum officinale | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| _{5.} Plantago major | 10 | No | FACU | Deminions of Four Vegetation offata. |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Cirsium discolor | 5 | No | UPL | more in diameter at breast height (DBH), regardless of |
| 7. Asclepias syriaca | 5 | No | FACU | height. |
| | | · | | neight. |
| 8 | - | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| | | · . <u></u> | | m) tall. |
| 10 | | · | | |
| 11. | | | | Herb All berbasseus (non woodu) planta, regardlage |
| | 100 | Tetal Cause | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| F0 | | = Total Cove | | of size, and woody plants less than 5.20 it tall. |
| 50% of total cover: <u>50</u> | 20% of | total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| | 0 | | | |
| 1. <u></u> | 0 | · | | |
| 2 | | | | |
| 2 | | | | |
| 3 | | · | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| ^{3.} | | · . <u></u> | | |
| | 0 | = Total Cove | r | Present? Yes No V |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | - | | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Depth | Matrix | | Redo | x Feature | S | | | |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-8 | 10YR 4/2 | 90 | 7.5YR 4/1 | 5 | D | Μ | SIC | |
| | | _ | 7.5YR 4/6 | 5 | С | М | | |
| 8-18 | 7.5YR 4/1 | 85 | 7.5YR 4/6 | 15 | С | М | SIC | |
| | | | · | | | | | |
| | Concentration, D=Dep | | | S=Maskee | d Sand Gra | ains. | ² Location: PL=Por | e Lining, M=Matrix. |
| Hydric Soi | I Indicators: | | | | | | Indicators f | for Problematic Hydric Soils ³ |
| Black H Hydrog Stratifie 2 cm N Deplete Thick I Sandy | bl (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) Muck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (1 RA 147, 148) | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark 3 Depleted Dark 3 Redox Depression Iron-Mangan MLRA 13 | elow Surfa inface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F esse Mass |) (MLRA 1 (F2) =6) ∋ (F7) '8) | 47, 148) | , 148) Coast F (MLF Piedmo (MLF Very Sh | uck (A10) (MLRA 147) Prairie Redox (A16) RA 147, 148) Int Floodplain Soils (F19) RA 136, 147) nallow Dark Surface (TF12) Explain in Remarks) |
| Sandy Sandy | Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) | | Umbric Surfa Piedmont Flo Red Parent N | ice (F13) podplain S | Soils (F19) | (MLRA 14 | 48) wetland l | s of hydrophytic vegetation and hydrology must be present, isturbed or problematic. |
| Restrictive | Layer (if observed) | : | | | | | | |
| Type: | | | | | | | | |
| Depth (i | nches): | | | | | | Hydric Soil Prese | ent? Yes 🖌 No 🔜 |
| Remarks: | | | | | | | 1 | |



Upland data point wpoy005_u2 facing west



Upland data point wpoy005_u2 facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Poo | ahontas County | _ Sampling Date: 7/14/2016 |
|---------------------------------------------------------|-------------------------------|---------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy004e_w |
| Investigator(s): KO, AS | Section, Townsh | ip, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): Valley | | e, convex, none): <u>concave</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S | _at: <u>38.16948718</u> | _ Long: <u>-79.97197535</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: PEM |
| Are climatic / hydrologic conditions on the site typica | al for this time of year? Yes | No (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrology _ | significantly disturbed? | Are "Normal Circumstances" | present? Yes No |
| Are Vegetation, Soil, or Hydrology _ | naturally problematic? | (If needed, explain any answ | ers in Remarks.) |
| SUMMARY OF EINDINGS Attach site | man chaving compling p | int locations transact | a important factures ato |

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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|-----------------------|---------------------------------------|-----|----|
| Remarks: | | | | | | |
| Wetland data point taken on floodplain in | active | hayfield | I with disturbed vege | etation. | | |
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| 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) | FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <u><</u> No <u>Depth (inches): 4</u> | |
| Water Table Present? Yes <u><</u> No <u>Depth</u> (inches): 0 | |
| Saturation Present? Yes <u></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: | |
| Kondika. | |
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Sampling Point: Wpoy004e_w

| | Abaaluta | - Dominant Ir | diaatar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|-------------------------|---------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | Absolute | Dominant Ir Species? | | |
| | 0 | <u>opecies:</u> | Otatus | Number of Dominant Species |
| 1. none | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | |
| _ | | | | Prevalence Index worksheet: |
| 7 | | · | | Total % Cover of: Multiply by: |
| | 0 | = Total Cover | r | |
| 50% of total cover:0 | 20% of | total cover: | 0 | OBL species x 1 = 85 |
| 0 | 2070.01 | | | FACW species x 2 = 30 |
| Sapling/Shrub Stratum (Plot size:) | | | | 0 |
| 1. none | 0 | | | FAC species $0 \times 3 = 0$ |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | · | | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals:(A)(A)(B) |
| 4 | | · | | |
| 5 | | | | A 445 |
| | | · | | Prevalence Index = B/A =1.15 |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | . <u></u> | | 2 - Dominance Test is >50% |
| 9. | | | | |
| · | 0 | | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| | 40 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Scirpus atrovirens | 40 | Yes | OBL | |
| _{2.} Glyceria striata | 25 | Yes | OBL | |
| | | · | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Juncus effusus | 15 | No | FACW | be present, unless disturbed or problematic. |
| 4. Eleocharis palustris | 10 | No | OBL | |
| | | | | Definitions of Four Vegetation Strata: |
| 5. Carex vulpinoidea | 10 | No | OBL | |
| 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 | | · | | 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. |
| 10 | | · | | |
| 11 | | . <u></u> | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | | | | |
| 50% of total cover: 50 | 20% of | total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| 1 | 0 | | | |
| 2 | | | | |
| | | | | |
| 3 | | · | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | 0 | = Total Cover | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Depth (inches) Matrix Redox Features 0-5 Color (moist) % Type ¹ Loc ² Texture Remarks 0-5 7.5YR 4/2 90 7.5YR 3/4 10 C M SIC 5-18 2.5Y 4/1 85 7.5YR 4/6 15 C PL/M SIC |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0-5 7.5YR 4/2 90 7.5YR 3/4 10 C M SIC |
| |
| 5-18 2.5Y 4/1 85 7.5YR 4/6 15 C PL/M SIC |
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| |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: ¹ Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : |
| |
| Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) |
| Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) |
| Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) |
| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) |
| |
| Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) |
| Depleted below bark Surface (A12) Depleted bark Surface (F7) Other (Explain in Remarks) |
| Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, |
| MLRA 147, 148) MLRA 136) |
| Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and |
| Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, |
| Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. |
| Restrictive Layer (if observed): |
| Type: |
| |
| |
| Remarks: |
| |



Wetland data point wpoy004e_w facing southeast



Wetland data point wpoy004e_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | ahontas County | _ Sampling Date: 7/14/2016 |
|-------------------------------------------------------------------|------------------------|--------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy004_u |
| Investigator(s): KO, AS | Section, Townshi | o, Range: <u>No PLSS in this are</u> | a |
| Landform (hillslope, terrace, etc.): Valley | | , convex, none): <u>none</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.1</u> | 6953316 | Long: <u>-79.97205728</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | No (If no, explain in | 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 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 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---------------------------------------------------------------------------------------|--------------------|----------------------|---------------------------------------|-----|------|
| Remarks: | | | | | |
| Upland data point taken on floodplain in a | active hayfield | with disturbed veget | ation. | | |
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| 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) ils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No Ver Depth (inches): | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect | Wetland Hydrology Present? Yes No ions), if available: |
| Remarks: | |

Sampling Point: Wpoy004_u

| (| | . | | |
|---------------------------------------------------------|----------|--------------|--------|-------------------------------------------------------------------|
| | Absolute | Dominant I | | Dominance Test worksheet: |
| Tree Stratum (Plot size: 0) | | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC:0 (A) |
| 2 | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 2 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 6 | | | | |
| | | | | Prevalence Index worksheet: |
| / | | · | | Total % Cover of: Multiply by: |
| | 0 | = Total Cove | r | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species x 1 =0 |
| 0 | | | | FACW species x 2 =0 |
| Sapling/Shrub Stratum (Plot size: 0) | | | | 0 |
| 1. none | 0 | | | FAC species $x^3 = $ |
| 2 | | | | FACU species $\frac{75}{x 4} = \frac{300}{x 4}$ |
| 2 | | · | | 25 125 |
| 3 | | | | UPL species X 5 = |
| | | | | Column Totals: (A) 425 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = $B/A = 4.25$ |
| 6 | | | | |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | | | 2 - Dominance Test is >50% |
| 9 | | · <u> </u> | | 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 0 | = Total Cove | r | |
| 50% of total cover:0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| <u></u> | | | | data in Remarks or on a separate sheet) |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Trifolium pratense | 55 | Yes | FACU | |
| 2. Plantago lanceolata | 20 | Yes | UPL | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Taraxacum officinale | 10 | No | FACU | be present, unless disturbed or problematic. |
| 4. Solanum carolinense | 5 | No | FACU | |
| 5. Galinsoga parviflora | 5 | | | Definitions of Four Vegetation Strata: |
| 5. Gaiiiisoga parvinora | 5 | No | UPL | |
| _{6.} Plantago major | 5 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| - | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | · | | height. |
| 8 | | | | |
| 0 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | |
| | 100 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | Meady vine All woods vince greater than 2.20 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. <u></u> | | · | | |
| 2. | | | | |
| | | | | |
| 3 | | · | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| 0: | | | | Present? Yes No |
| | 0 | = Total Cove | r | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | hoot) | | | |
| Remarks. (include photo numbers here of on a separate s | neet.) | | | |
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| Profile Desc | cription: (Describe to | o the dept | h needed to docu | ment the i | ndicator | or confirm | the absence | of indicators.) |
|------------------------|--------------------------------|-------------|-------------------|--------------|--------------------|---------------------|---------------------------|-------------------------------------------------------------------|
| Depth | Matrix | | | x Features | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-6 | 10YR 4/3 | 100 | | | | | SIL | |
| 6-18 | 10YR 4/2 | 100 | | | | | SIL | |
| | | · | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion. RM=I | Reduced Matrix, M | S=Masked | Sand Gra | ains | ² Location: PI | _=Pore Lining, M=Matrix. |
| Hydric Soil | | , | , | | | | Indica | ators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | e (S7) | | | 2 | cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | ce (S8) (M | LRA 147, | | oast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | urface (S9) | (MLRA 1 | 47, 148) | | (MLRA 147, 148) |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | ed Matrix (I | -2) | | Pi | iedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | , | , | | | ery Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Da | | | | 0 | ther (Explain in Remarks) |
| | ark Surface (A12) | | Redox Depre | | | | | |
| | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangan | | es (F12) (I | _RR N, | | |
| | A 147, 148) | | MLRA 13 | • | | | 3 | |
| | Bleyed Matrix (S4) | | Umbric Surfa | · / · | | | | cators of hydrophytic vegetation and |
| | Redox (S5) I Matrix (S6) | | Piedmont Flo | • | , , | • | • | tland hydrology must be present, ess disturbed or problematic. |
| | Layer (if observed): | | | Vialenai (FA | | A 1 <i>21</i> , 147 |) uni I | |
| | Layer (il observeu). | | | | | | | |
| Type: | -1 | | | | | | | Present? Yes 🖌 No |
| | ches): | | | | | | Hydric Soil | Present? Yes <u>V</u> No |
| Remarks: | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Upland data point wpoy004_u facing southwest



Upland data point wpoy004_u facing south

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | _ Sampling Date: 7/15/2016 |
|------------------------------------------------------------------------|-------------------|------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy008e_w |
| Investigator(s): KO, AS | Section, Tow | nship, Range: <u>No PLSS in this are</u> | ea |
| Landform (hillslope, terrace, etc.): | | cave, convex, none): <u>concave</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S Lat: 38.16765 | 594 | Long: <u>-79.97732561</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: PEM |
| 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 | cantly disturbed? | Are "Normal Circumstances" | present? Yes No _ |
| Are Vegetation, Soil, or Hydrology natural | lly problematic? | (If needed, explain any answ | ers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | 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 |
|---------------------------------------------------------------------------------------|------------------|------------------------|---------------------------------------|------------------|--------|
| Remarks: | | | | | |
| Wetland data point taken at toeslope of v | alley floodplair | n. A portion of wetlar | nd is in a active hayfield with c | listurbed vegeta | ation. |
| | | | | | |
| | | | | | |

| Wetland Hydrology Indicate | ors: | | | Secondary Indicators (minimum of two required) |
|-------------------------------------------|---------------|---------------------------------|----------------------------------------|------------------------------------------------|
| Primary Indicators (minimum | of one is rea | quired; ch | neck 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) | | 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 Ae | rial Imagery | (B7) | | Shallow Aquitard (D3) |
| Water-Stained Leaves (E | 39) | | | Microtopographic Relief (D4) |
| Aquatic Fauna (B13) | | | | FAC-Neutral Test (D5) |
| Field Observations: | | | | |
| Surface Water Present? | Yes 🖌 | No | Depth (inches):6 | |
| Water Table Present? | Yes 🖌 | No | Depth (inches):0 | |
| Saturation Present? | Yes 🖌 | No | Depth (inches):0 | Wetland Hydrology Present? Yes <u></u> No |
| (includes capillary fringe) | eam daude | monitorir | ng well, aerial photos, previous inspe | ctions) if available: |
| | cam gaage, | mormorm | | |
| Remarks: | | | | |
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Sampling Point: Wpoy008e_w

| · · · | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1. none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC:3 (A) |
| | | · | | |
| 2 | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:3 (B) |
| 4 | | | | |
| | | · | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | · | | |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | - | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | | 0 | OBL species20 x 1 =20 |
| | 20% 01 | total cover: | <u> </u> | 80 100 |
| Sapling/Shrub Stratum (Plot size: 0) | | | | FACW species $x = 0$ |
| 1. none | 0 | | | FAC species $x^3 = $ |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | · | | 0 |
| 3 | | · | | UPL species 0 $x = 0$ 100 $(x) = 180$ (x) |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | · | | Prevalence Index = B/A =1.8 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | ✓ 2 - Dominance Test is >50% |
| 9 | | . <u> </u> | | ✓ 3 - Prevalence Index is $\leq 3.0^1$ |
| | 0 | = Total Cove | r | |
| 50% of total cover:0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 0 | 20 /0 01 | | | data in Remarks or on a separate sheet) |
| | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex scoparia | 40 | Yes | FACW | |
| 2. Phalaris arundinacea | 40 | Yes | FACW | |
| 3 Carex vulpinoidea | 20 | Yes | OBL | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex vulpinoidea | | 165 | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Dominiono or rour vogotation otratar |
| | | · | | Tree – 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. | | | | |
| | | | | 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 borbassaus (non woody) planta regardlass |
| | 100 | = Total Cove | - | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | | | | |
| | 20% 01 | total cover: | 20 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| | | · | | |
| 2 | | · | | |
| 3 | | . <u> </u> | | |
| 4 | | | | |
| 5. | | | | Hydrophytic |
| ^{3.} | | · | | Vegetation Present? Yes <u>Ves</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 | heet) | | | |
| Remarks. (molude photo numbers here of on a separate s | neet.) | | | |
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| Profile De | scription: (Describe | to the dep | oth needed to docum | nent the ind | icator o | or confirm | the absence of | f indicators.) | |
|------------|------------------------------------------|------------|----------------------------------|---------------|-------------------|------------------|-----------------------------|-------------------------------------------------|---|
| Depth | Matrix | | | Features | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-6 | 7.5YR 4/2 | 100 | | | | | SIC | | |
| 6-18 | 7.5YR 4/1 | 85 | 7.5YR 4/6 | 15 | С | М | SIC | | |
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| | | | | | | | | | |
| | Concentration, D=Dep | letion RM | -Reduced Matrix MS | -Masked S | and Gra | line | ² Location: PL - | Pore Lining, M=Matrix. | |
| | il Indicators: | | | | | | | ors for Problematic Hydric Soils ³ : | |
| - | ol (A1) | | Dark Surface | (S7) | | | | m Muck (A10) (MLRA 147) | |
| | Epipedon (A2) | | Polyvalue Bel | () | (S8) (M | LRA 147. | | ast Prairie Redox (A16) | |
| | Histic (A3) | | Thin Dark Su | | | | · | MLRA 147, 148) | |
| Hydro | gen Sulfide (A4) | | Loamy Gleye | | | | Pie | dmont Floodplain Soils (F19) | |
| Stratifi | ed Layers (A5) | | Depleted Mat | rix (F3) | | | (| MLRA 136, 147) | |
| 2 cm M | /luck (A10) (LRR N) | | Redox Dark S | Surface (F6) | | | Ver | y Shallow Dark Surface (TF12) | |
| Deplet | ed Below Dark Surface | e (A11) | Depleted Dar | k Surface (F | 7) | | Oth | er (Explain in Remarks) | |
| | Dark Surface (A12) | | Redox Depres | · · · | | | | | |
| | Mucky Mineral (S1) (L | .RR N, | Iron-Mangane | | (F12) (L | .RR N, | | | |
| | RA 147, 148) | | MLRA 136 | | | | 3 | | |
| | Gleyed Matrix (S4) | | Umbric Surfac | · /· | | | | ators of hydrophytic vegetation and | |
| | Redox (S5) | | Piedmont Flo | • | . , | • | • | and hydrology must be present, | |
| | ed Matrix (S6) e Layer (if observed): | | Red Parent N | laterial (F21 | | 4 127, 147 |) unies | ss disturbed or problematic. | |
| | e Layer (il observed): | | | | | | | | |
| Type: | | | | | | | | | |
| Depth (| inches): | | | | | | Hydric Soil P | resent? Yes <u>V</u> No | _ |
| Remarks: | | | | | | | | | |
| rtemanto. | | | | | | | | | |



Wetland data point wpoy008e_w facing east



Wetland data point wpoy008e_w facing west

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | _ Sampling Date: 7/15/2016 |
|-------------------------------------------------------------------|------------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy008_u |
| Investigator(s): KO, AS | Section, Townsl | hip, Range: <u>No PLSS in this are</u> | a |
| Landform (hillslope, terrace, etc.): Valley | | /e, convex, none): <u>none</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): S Lat: 38.1 | 6761062 | Long: <u>-79.97728318</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classif | ication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | No (If no, explain in | 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 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 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---------------------------------------------------------------------------------------|--------------------|----------------------|---------------------------------------|-----|------|
| Remarks: | | | - | | |
| Upland data point taken on floodplain in a | active hayfield | with disturbed veget | ation. | | |
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| 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 | bils (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 |
| | |
| (includes capillary fringe) | Constant Standard International States |
| | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |

Sampling Point: Wpoy008_u

| _ | Absolute | | | Dominance Test worksheet: |
|---------------------------------------------------------|----------|---------------|--------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | % Cover | Species? | Status | Number of Dominant Species |
| 1_none | 0 | | | That Are OBL, FACW, or FAC: (A) |
| | | · | | |
| 2 | | · | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:2 (B) |
| 4 | | · | | |
| 4 | | · <u> </u> | | Percent of Dominant Species |
| 5 | | . <u> </u> | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 6 | | | | |
| 0 | | · <u> </u> | | Prevalence Index worksheet: |
| 7 | | · | | |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species x 1 =0 |
| 0 | 2078.01 | | | FACW species $0 	 x 2 = 0$ |
| Sapling/Shrub Stratum (Plot size: 0) | | | | 0 |
| 1. none | 0 | | | FAC species $x^3 = $ |
| | | | | FACU species 50 x 4 = 200 |
| 2 | | | | 50 050 |
| 3 | | · | | UPL species $50 \times 5 = 250$ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | · | | Prevalence Index = $B/A = 4.5$ |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | . <u> </u> | | 2 - Dominance Test is >50% |
| 9. | | | | |
| 0 | 0 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| Plantago lanceolata | 30 | Vaa | וסו | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 11 <u></u> | | Yes | UPL | |
| 2. Trifolium repens | 30 | Yes | FACU | |
| 3. Cirsium discolor | 15 | No | UPL | ¹ Indicators of hydric soil and wetland hydrology must |
| | <u> </u> | | | be present, unless disturbed or problematic. |
| 4. Taraxacum officinale | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| _{5.} Plantago major | 10 | No | FACU | Dominiono or i our rogotation otratar |
| | 5 | No | וחו | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Daucus carota | 5 | No | UPL | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | |
| 8 | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | · | | |
| 11 | | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | total cover: | 20 | |
| Woody Vine Stratum (Plot size: 0) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| | | · | | |
| 3 | | · | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | · <u> </u> | | 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 | neet.) | | | |
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| Profile Des | cription: (Describe t | o the de | oth needed to docum | nent the i | indicator of | or confirm | the absence o | of indicators.) |
|------------------------|----------------------------------------------------|-----------|----------------------------------|------------|--------------------|------------------|----------------------------|-------------------------------------------------|
| Depth | Matrix | | | k Feature | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-8 | 7.5YR 4/2 | 100 | | | | | SIC | |
| 8-18 | 7.5YR 4/1 | 85 | 7.5YR 3/4 | 15 | С | Μ | С | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM | =Reduced Matrix, MS | S=Masked | d Sand Gra | ains. | ² Location: PL: | =Pore Lining, M=Matrix. |
| Hydric Soil | | , | , | | | | | ors for Problematic Hydric Soils ³ : |
| Histoso | l (A1) | | Dark Surface | (S7) | | | <u> </u> | m Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surfa | ce (S8) (M | LRA 147, | 148) Co | ast Prairie Redox (A16) |
| Black H | istic (A3) | | Thin Dark Su | | | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | (F2) | | | edmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mat | · , | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | • | , | | | ry Shallow Dark Surface (TF12) |
| | d Below Dark Surface | e (A11) | Depleted Dar | | | | Oti | ner (Explain in Remarks) |
| | ark Surface (A12) ⁄lucky Mineral (S1) (L | | Redox Depre | | , | | | |
| | A 147, 148) | KK N, | Iron-Mangane MLRA 136 | | es (F12) (I | _KK N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | (MI RA 13 | 6 122) | ³ Indic | ators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | | | | | and hydrology must be present, |
| | d Matrix (S6) | | Red Parent M | • | . , | • | • | ess disturbed or problematic. |
| | Layer (if observed): | | | | , (| | | · |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil F | Present? Yes 🖌 No |
| Remarks: | · | | | | | | <u> </u> | |
| | | | | | | | | |
| | | | | | | | | |



Upland data point wpoy008_u facing east



Upland data point wpoy008_u facing west

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | Sampling Date: 7/15/2016 |
|------------------------------------------------------------------------|------------------|------------------------------------------|------------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: Wpoy009e_w |
| Investigator(s): KO, AS | Section, Tow | vnship, Range: <u>No PLSS in this ar</u> | ea |
| Landform (hillslope, terrace, etc.): toeslope | | cave, convex, none): <u>concave</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.17045</u> | 144 | Long: <u>-79.97366714</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classi | fication: PEM |
| 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 | wing sampling | point locations, transec | ts, 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: | | | - | | | |
| Wetland data point taken in an inundate | ed swale at toes | lope below road bed | and will receive storm water | runoff. S | Subsurfa | ace hydrology flow before |

Wetland data point taken in an inundated swale at toeslope below road bed and will receive storm water runoff. Subsurface hydrology flow before spreading into an active hayfield.

| 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 R | coots (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 Soi | 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):4 | |
| Water Table Present? Yes <u></u> No Depth (inches): 0 | |
| Saturation Present? Yes <u><</u> No <u>Depth (inches)</u> : 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u></u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti | ons), if available: |
| | |
| Remarks: | |
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Sampling Point: Wpoy009e_w

| | Absolute | Dominant I | dicator | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 0) | | Species? | | |
| 1 none | 0 | 000000 | Olalas | Number of Dominant Species That Are OBL EACW or EAC: 2 (A) |
| 1 | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC:(A/B) |
| | | | | |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species x 1 =100 |
| 0 | 20 % 01 | | | |
| Sapling/Shrub Stratum (Plot size:) | | | | FACW species $0 	 x^2 = 0$ |
| 1. none | 0 | | | FAC species $0 \times 3 = 0$ |
| | | | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals:(A)(B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =1 |
| 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 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Herb Stratum (Plot size:0) | | | | data in Remarks or on a separate sheet) |
| | 50 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Leersia oryzoides | 50 | Yes | OBL | |
| 2. Nasturtium officinale | 50 | Yes | OBL | |
| | | | | ¹ 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 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | 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. |
| 10 | | | | |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 100 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | | total cover: | | |
| | 20 % 01 | total cover. | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 0) | | | | height. |
| 1. none | 0 | | | |
| | | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | 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 | sheet.) | | | |
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| Profile Desc | cription: (Describe to | o the depth | needed to docun | nent the i | ndicator | or confirm | the absence o | f indicators.) |
|--------------|----------------------------------|-------------|--------------------|---------------|-----------------|------------------|--------------------|----------------------------------------------------------|
| Depth | Matrix | | | x Features | 4 | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type' | Loc ² | <u>Texture</u> | Remarks |
| 0-8 | 2.5 Y 4/1 | 100 | | | | | C | |
| 8-18 | 2.5 Y 5/1 | 100 | | | | | С | |
| | | | | | | | | |
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| | oncentration, D=Deple | etion, RM=F | Reduced Matrix, MS | S=Masked | Sand Gra | ains. | | =Pore Lining, M=Matrix. |
| Hydric Soil | | | | (- -) | | | | ors for Problematic Hydric Soils ³ : |
| Histosol | . , | | Dark Surface | () | | | | m Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | | | | · | ast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | . , | • | 47, 148) | | (MLRA 147, 148) |
| | en Sulfide (A4) d Layers (A5) | | Loamy Gleye | • | -2) | | | edmont Floodplain Soils (F19) [MLRA 136, 147] |
| | uck (A10) (LRR N) | | Redox Dark S | • • | 6) | | | ry Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (Δ11) | Depleted Dar | • | , | | | ner (Explain in Remarks) |
| · | ark Surface (A12) | (////) | Redox Depre | | . , | | 0 | |
| | /ucky Mineral (S1) (LI | RR N. | Iron-Mangane | • | | LRR N. | | |
| | A 147, 148) | , | MLRA 13 | | ···/(| , | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | • | MLRA 13 | 6, 122) | ³ Indic | ators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | odplain So | oils (F19) | (MLRA 14 | 8) wetla | and hydrology must be present, |
| Stripped | Matrix (S6) | | Red Parent M | laterial (F2 | 21) (MLR | A 127, 147 |) unle | ss disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil P | Present? Yes 🖌 No |
| Remarks: | / - | | | | | | , | |
| Nomaina. | | | | | | | | |
| | | | | | | | | |
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Wetland data point wpoy009e_w facing southwest



Wetland data point wpoy009e_w facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas County | _ Sampling Date: 7/15/2016 |
|-----------------------------------------------------------------------|----------------------|-------------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoy009_u |
| Investigator(s): KO, AS | Section, Tow | vnship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): toeslope | | cave, convex, none): <u>convex</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): S Lat: 38.1704 | 45631 | Long: <u>-79.97359917</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifie | cation: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this tim | ne of year? Yes | No (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology signi | ificantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natu | rally 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 in fallow field. | | | | | |

| HYDROL | .OGY |
|--------|------|
|--------|------|

| Primary Indicators (minimum (| | | Wetland Hydrology Indicators: | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Primary Indicators (minimum of one is required; check all that apply) | | | | | Surface Soil Cracks (B6) | | |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Water-Stained Leaves (B Aquatic Fauna (B13) | 0,1 | | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) | , , , , , , , , , , , , , , , , , , , | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) | | |
| Field Observations: | | | | | | | |
| Surface Water Present? | Yes I | No 🔽 | Depth (inches): | | | | |
| Water Table Present? | Yes N | No 🖌 | Depth (inches): | | | | |
| Saturation Present? | Yes N | No 🖌 | _ Depth (inches): | Wetland H | łydrology Present? Yes No✔ | | |
| (includes capillary fringe) | | | | | | | |
| | 0 0 / | onitoring v | vell, aerial photos, previous inspec | tions), if ava | ilable: | | |

Sampling Point: wpoy009_u

| (· · · · · · · · · · · · · · · · · | AL 1.4 | | P 4 | |
|---------------------------------------------------------|---------------------|---------------------------------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size:0_) | Absolute | | | Dominance Test worksheet: |
| | <u>% Cover</u> 0 | Species? | Status | Number of Dominant Species |
| 1. none | • | <u> </u> | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | <u> </u> | Species Across All Strata: (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL EACW or EAC: 50 (A/B) |
| | | | | That Are OBL, FACW, or FAC: 50 (A/B) |
| 6 | | | | Decoder as in decomplicity of |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | Total Cava | | Total % Cover of: Multiply by: |
| | | = Total Cove | 0 | OBL species 0 x 1 = 0 |
| 50% of total cover:0 | 20% of | f total cover: | | 20 20 |
| Sapling/Shrub Stratum (Plot size:0 | | | | FACW species x 2 = |
| none | 0 | | | FAC species $\frac{15}{x 3} = \frac{45}{x 3}$ |
| | | | | FACU species 45 x 4 = 180 |
| 2 | | | | |
| 3 | | | | UPL species x 5 = |
| | | | · | Column Totals: (A) 285 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = $B/A = 3.16$ |
| 6 | | | | |
| 0 | | | | 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 Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| <u> </u> | _ | | | data in Remarks or on a separate sheet) |
| | 20 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Vernonia noveboracensis | 30 | Yes | FACW | |
| _{2.} Asclepias syriaca | 20 | Yes | FACU | |
| 3. Verbesina alternifolia | 15 | No | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4. Dactylis glomerata | 10 | No | FACU | Definitions of Four Vegetation Strata: |
| 5. Galium aparine | 10 | No | FACU | Deminions of Four Vegetation Strata. |
| | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Arctium lappa | 10 | No | | more in diameter at breast height (DBH), regardless of |
| 7. Solanum carolinense | 5 | No | FACU | 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 |
| | 100 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 50 | 20% of | f total cover: | 20 | |
| <u> </u> | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| | | | | |
| 3 | | | | |
| 4 | | | | |
| | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | | = Total Cove | | Present? Yes No V |
| 50% of total cover: 0 | 20% of | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | | | | |
| Remarks. (include proto numbers here of on a separate s | neet.) | | | |
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| Profile Desc | cription: (Describe to | the depth | needed to docum | nent the indic | cator or | r confirm | the absence of indicators.) |
|------------------------|-------------------------|------------|-------------------|-------------------|------------------|------------------|--------------------------------------------------------------|
| Depth | Matrix | | Redox | K Features | | | |
| (inches) | Color (moist) | % | Color (moist) | <u>%</u> <u>T</u> | ype ¹ | Loc ² | Texture Remarks |
| 0-8 | 10 YR 4/2 | 100 | | | | | SIC |
| 8-18 | 10 YR 3/1 | 100 | | | | | SIC |
| | | | | | · . | | |
| <u> </u> | | | | | | | |
| | | | | | | | |
| | | | | | <u> </u> | <u> </u> | |
| <u> </u> | | | | | | | |
| | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | tion, RM=R | educed Matrix, MS | -Masked Sa | nd Grai | ns. | ² Location: PL=Pore Lining, M=Matrix. |
| Hydric Soil | | | · · · · | | | | Indicators for Problematic Hydric Soils ³ : |
| Histosol | (A1) pipedon (A2) | | Dark Surface | · · / | C0) /MI | DA 147 | 2 cm Muck (A10) (MLRA 147) 148) Coast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | | 7, 140) | Piedmont Floodplain Soils (F19) |
| | d Layers (A5) | | Depleted Mat | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | . , | | | Very Shallow Dark Surface (TF12) |
| | d Below Dark Surface | (A11) | Depleted Dar | () | 7) | | Other (Explain in Remarks) |
| | ark Surface (A12) | () | Redox Depres | • | , | | <u> </u> |
| | /lucky Mineral (S1) (LF | RR N. | Iron-Mangane | () | F12) (L | RR N. | |
| · | A 147, 148) | , | | | / (| , | |
| | Bleyed Matrix (S4) | | Umbric Surfac | | RA 136 | . 122) | ³ Indicators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | · · · | | | |
| Stripped | Matrix (S6) | | Red Parent M | • | | | , , , |
| Restrictive | Layer (if observed): | | | | | | |
| Type: | | | | | | | |
| Depth (in | ches): | | _ | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | • |
| | | | | | | | |



Upland data point wpoy009_u facing south



Upland data point wpoy009_u facing northeast

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | Sampling Date: 6/30/2016 |
|--------------------------------------------------------------------|------------------------|-----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe214e_w |
| Investigator(s): CG, SA | Section, Townsł | hip, Range: <u>No PLSS</u> in this area | |
| Landform (hillslope, terrace, etc.): drainage | | /e, convex, none): <u>concave</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.1</u> | 9138281 | Long: <u>-79.9524827</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | cation: PEM |
| Are climatic / hydrologic conditions on the site typical for this | time of year? Yes | _ No (If no, explain in F | Remarks.) |
| Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology <u>v</u> 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 _ | ン ン ン | No No No | Is the Sampled Area within a Wetland? | Yes _ | ~ | No |
|---------------------------------------------------------------------------------------|-------------------------|-------------|----------------|---------------------------------------|-------|---|----|
| Remarks: | | | | | | | |

| | | | Secondary Indicators (minimum of two required) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Indicators (minimum of o | ne is required; che | ck all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Water-Stained Leaves (B9) | | True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Other (Explain in Remarks) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) ots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Aquatic Fauna (B13) | | | ✓ FAC-Neutral Test (D5) |
| Field Observations: | | | |
| Surface Water Present? Y | es 🔽 No | Depth (inches):3 | |
| | | | |
| Water Table Present? Y | es 🖌 No | Depth (inches):0 | |
| | | 0 | Vetland Hydrology Present? Yes 🖌 No |
| Saturation Present? Y (includes capillary fringe) | es 🖌 No | ^ | ; ;; |
| Saturation Present? Y (includes capillary fringe) | es 🖌 No | Depth (inches):0 | ; ;; |

Sampling Point: wpoe214e_w

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|----------|---------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | | Species? | | Number of Dominant Species |
| 1. none | 0 | | | 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:(A/B) |
| 6 | | · | | Dravalan oo in day waxhah aat |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species x 1 =70 |
| 15 | 20 % 01 | total cover. | | FACW species 40 x 2 = 80 |
| Sapling/Shrub Stratum (Plot size:) | | | | 0 |
| 1. none | 0 | | | FAC species $x^3 = $ |
| 2 | | | | FACU species x 4 = |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | · | | 110 150 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence index $= B/A = 1.36$ |
| | | | | |
| 6 | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | · | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9. | | | | |
| · 5 | 0 | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 0 | 20% of | total cover: | 0 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | |
| 1. Persicaria punctata | 30 | Yes | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Poa palustris | 20 | Yes | FACW | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex canescens | 20 | Yes | OBL | be present, unless disturbed or problematic. |
| 4. Phalaris arundinacea | 20 | Yes | FACW | |
| 5. Typha X glauca | 20 | Yes | OBL | Definitions of Four Vegetation Strata: |
| 5. <u></u> | | | 000 | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | · | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | · | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 110 | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 55 | | total cover: | | |
| 50% of total cover. | 20% 0I | total cover. | | |
| 20 | | | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size:30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| Woody Vine Stratum (Plot size: <u>30</u>) 1. none | 0 | | | |
| 1. <u>none</u>) | 0 | | | |
| 1. <u>none</u> 2) | 0 | | | |
| 1. <u>none</u>) | 0 | | | |
| 1. <u>none</u> 2) | 0 | | | height. |
| 1. none) 2 | 0 | | | height. Hydrophytic |
| 1. none 2 | 0 | | | height. Hydrophytic Vegetation |
| 1. none) 2. | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| | 0 | | <u> </u> | height. Hydrophytic Vegetation |
| 1. none 2. 3. 4. 5. | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (flot="" 1)="" 1<="" ditatin="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (flot="" 1)="" 1<="" ditatin="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (flot="" 1)="" 1<="" ditatin="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (flot="" 1)="" 1<="" ditatin="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (flot="" 1)="" 1<="" ditatin="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |
| <tbody (fiol="" 1)="" 1<="" ditating="" size:)="" td="" vine=""><td>0 </td><td>= Total Cove</td><td><u> </u></td><td>height. Hydrophytic Vegetation</td></tbody> | 0 | = Total Cove | <u> </u> | height. Hydrophytic Vegetation |

| Profile Desc | cription: (Describe to | o the dep | oth needed to docum | nent the | indicator | or confirm | n the absence | of indicators.) |
|--------------|---------------------------------------|-----------|----------------------------------|-------------|---------------------|------------------|---------------------------|---------------------------------------------------|
| Depth | Matrix | | Redo | x Feature | S | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-10 | 10YR 3/1 | 100 | | | | | CL | |
| 10-16 | 10YR 5/1 | 60 | 7.5YR 4/6 | 40 | С | М | CL | |
| | | | | | | ······· | | |
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| | | | | | | | | |
| | | | | | | | | |
| | oncentration, D=Deple | ation RM | -Reduced Matrix MS | -Masker | d Sand Gra | aine | ² Location: Pl | _=Pore Lining, M=Matrix. |
| Hydric Soil | | | | | | | | Itors for Problematic Hydric Soils ³ : |
| Histosol | | | Dark Surface | (S7) | | | | cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | · · · | ice (S8) (N | ILRA 147, | | oast Prairie Redox (A16) |
| | istic (A3) | | Thin Dark Su | | | | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | | | | Pi | iedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Mat | rix (F3) | | | | (MLRA 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark S | Surface (F | =6) | | Ve | ery Shallow Dark Surface (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface | e (F7) | | 0 | ther (Explain in Remarks) |
| | ark Surface (A12) | | Redox Depre | | | | | |
| | Mucky Mineral (S1) (LF | RR N, | Iron-Mangane | | es (F12) (I | LRR N, | | |
| | A 147, 148) | | MLRA 13 | | | | 3 | |
| | Gleyed Matrix (S4) | | Umbric Surfa | . , | • | | | cators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | • | . , | • | | tland hydrology must be present, |
| | d Matrix (S6) Layer (if observed): | | Red Parent M | laterial (F | -21) (MLR | A 127, 147 | r) uni | ess disturbed or problematic. |
| | Layer (il observed). | | | | | | | |
| Туре: | | | | | | | | |
| | ches): | | | | | | Hydric Soil | Present? Yes <u>V</u> No |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Wetland data point wpoe214e_w facing north



Wetland data point wpoe214e_w facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Pocal | nontas County | Sampling Date: 6/30/2016 |
|---------------------------------------------------------------------------|--------------------|--------------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe214_u |
| Investigator(s): CG, SA | Section, Township | , Range: <u>No PLSS in this area</u> | |
| Landform (hillslope, terrace, etc.): pasture | | convex, none): <u>convex</u> | Slope (%): <u>0</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.191326</u> | 79 | Long: <u>-79.95243153</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classifica | ation: UPL |
| Are climatic / hydrologic conditions on the site typical for this time of | f year?Yes 🔽 N | lo (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? | Yes Yes _ ✔ | No No | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---------------------------------------------------------|-----------------------|--------------|---------------------------------------|-----|------|
| Wetland Hydrology Present? | Yes | No <u> 🖌</u> | | | |
| Remarks: | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Wetland Hydrology Indicators: | 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) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled St Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) |
| Iron Deposits (B5) | Geomorphic Position (D2) |
| Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) | Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No <u>/</u> Depth (inches): | |
| Water Table Present? Yes No <u>/</u> Depth (inches): | |
| | |
| Saturation Present? Yes <u>No</u> Depth (inches): <u>(includes capillary fringe</u>) | Wetland Hydrology Present? Yes No |
| Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective | |

Sampling Point: wpoe214_u

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|--------------------------------------------|----------|-------------------------------|---------|---------------------------------------------------------------------------------------------------------------|
| | | Species? | | |
| 1. none | 0 | | | Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) |
| | | · · | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 2 (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL_EACW_ or EAC: 0 (A/B) |
| | | · | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | · · | | Prevalence Index worksheet: |
| 7 | | . <u> </u> | | |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | 20% of | total cover: | 0 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species0 x 2 =0 |
| none | 0 | | | FAC species $5 \times 3 = 15$ |
| 1. <u>none</u> | 0 | | | 07 299 |
| 2 | | | | FACU species $x 4 = $ |
| 3 | | | | UPL species x 5 = |
| | | | | Column Totals:(A)(A)(B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =3.95 |
| 6 | | | | |
| 7 | | | - | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · · | | 2 - Dominance Test is >50% |
| 9 | | <u> </u> | | 3 - Prevalence Index is $\leq 3.0^{1}$ |
| | 0 | = Total Cover | | |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1 Anthoxanthum odoratum | 40 | Vaa | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. | | Yes | FACU | |
| 2. Phleum pratense | 40 | Yes | FACU | |
| _{3.} Plantago major | 10 | No | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Trifolium pratense | 5 | No | FACU | be present, unless disturbed or problematic. |
| | 5 | | | Definitions of Four Vegetation Strata: |
| 5. Juncus tenuis | | No | FAC | The Minister leafs and discussions of a (7.0 cm) of |
| 6. Taraxacum officinale | 2 | No | FACU | 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. | | | | |
| | 102 | Tatal Cause | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 51 | | = Total Cover total cover: | | of size, and woody plants less than 5.20 it tall. |
| | _ 20% of | total cover: | 20.4 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: <u>30</u>) | | | | height. |
| | 0 | | | |
| 1. none | | | | |
| | | | | |
| 2 | | | | |
| | | | | |
| 2 | | | | Hydronhytic |
| 2 3 4 | | | | Hydrophytic Vegetation |
| 2 3 | | · | | Hydrophytic Vegetation Present? Yes No |
| 2 3 4 5 | 0 | Total Cover | | Vegetation |
| 2 3 4 | 0 | · | | Vegetation |

| Depth | Matrix | | Redo | x Feature | s | | | |
|-----------|---------------------------------------------|----------|----------------------------------------------|------------|-------------------|------------------|--------------------------------|-------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-16 | 10YR 4/2 | 95 | 10YR 4/6 | 5 | C | M | CL | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | · | | | | | | · | |
| | · | | | | | | | |
| | | | | | | | | |
| Type: C-C | Concentration, D=Depl | etion RM | -Reduced Matrix M | S-Masker | 1 Sand Gra | ains | ² Location: PL=Pore | Lining M-Matrix |
| | Indicators: | | | 0=maonet | | | | or Problematic Hydric Soils ³ |
| _ | l (A1) Epipedon (A2) Iistic (A3) | | Dark Surface Polyvalue Be Thin Dark St | elow Surfa | | | 148) Coast P | uck (A10) (MLRA 147) rairie Redox (A16) A 147, 148) |
| | en Sulfide (A4) | | Loamy Gley | | | ,, | • | nt Floodplain Soils (F19) |
| | ed Layers (A5) | | Depleted Ma | . , | | | • | A 136, 147) |
| | uck (A10) (LRR N) | | Redox Dark | ``` | , | | | allow Dark Surface (TF12) |
| | ed Below Dark Surface | e (A11) | Depleted Da | | | | Other (E | xplain in Remarks) |
| | Park Surface (A12) | | Redox Depre | • | , | | | |
| | Mucky Mineral (S1) (L A 147, 148) | KK N, | Iron-Mangar MLRA 13 | | es (F12) (I | LKK N, | | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | (MI RA 13 | 6 122) | ³ Indicators | of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | . , | • | | | ydrology must be present, |
| | d Matrix (S6) | | Red Parent I | • | • • | • | • | sturbed or problematic. |
| | Layer (if observed): | | | | / | , | , | - F |
| Type: | , | | | | | | | |
| | nches): | | | | | | Hydric Soil Prese | nt? Yes 🖌 No |
| -1 - (- | , | | | | | | | |



Upland data point wpoe214_u facing north



Upland data point wpoe214_u facing east

| Project/Site: Atlantic Coast Pipeline | City/County: Po | cahontas County | Sampling Date: <u>3/29/2016</u> | | | |
|-----------------------------------------------------------------|--------------------------|--------------------------------------------------|---------------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe010e_w | | | |
| Investigator(s): CG, SH | Section, Townsh | _ Section, Township, Range: No PLSS in this area | | | | |
| Landform (hillslope, terrace, etc.): drainage | | re, convex, none): <u>concave</u> | Slope (%): <u>4</u> | | | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38</u> . | 30094668 | Long: <u>-79.87045781</u> | Datum: WGS 1984 | | | |
| Soil Map Unit Name: | | NWI classific | cation: None | | | |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes | No (If no, explain in R | 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 <u>✓</u> Yes <u>✓</u> Yes <u>✓</u> | No No No | Is the Sampled Area within a Wetland? | Yes 🖌 | No |
|---------------------------------------------------------------------------------------|----------------------------------------------|----------------|---------------------------------------|-------|----|
| Remarks: | | | | | |

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) | Dry-Season Water Table (C2) |
| Field Observations: | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): 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: wpoe010e_w

| | Absoluto | Dominant I | adicator | Dominance Test worksheet: | | |
|---------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------------------------------------------------------|--|--|
| Tree Stratum (Plot size: 30) | | Species? | | | | |
| | | | | Number of Dominant Species That Are OBL, FACW, or FAC: 4 | | |
| 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:(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 <u>5</u> x 1 = <u>5</u> | | |
| 15 | 20/00 | total 00101 | | FACW species 10 x 2 = 20 | | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | E 1E | | |
| 1 | | | | | | |
| 2 | | | | FACU species $\underline{\qquad}$ $x 4 = \underline{\qquad}$ | | |
| 3 | | | | UPL species $0 	 x 5 = 0$ | | |
| | | | | Column Totals: 22 (A) 48 (B) | | |
| 4 | | | | | | |
| 5 | | | | Prevalence Index = B/A =2.18 | | |
| 6 | | | | | | |
| | | | | Hydrophytic Vegetation Indicators: | | |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation | | |
| 8 | | | | 2 - Dominance Test is >50% | | |
| 9. | | | | | | |
| | 0 | = Total Cove | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ | | |
| 50% of total cover: 0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting | | |
| | 20% 0 | total cover. | | data in Remarks or on a separate sheet) | | |
| | _ | | | Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 1. Woodwardia areolata | 5 | Yes | FACW | | | |
| 2. Spiraea tomentosa | 5 | Yes | FACW | | | |
| 3. Carex blanda | 5 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must | | |
| | | · | | — be present, unless disturbed or problematic. | | |
| 4. Galium asprellum | 5 | Yes | OBL | Definitions of Four Vegetation Strata: | | |
| 5. Rosa multiflora | 2 | No | FACU | C C | | |
| 6. | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or | | |
| | | | | 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 | | |
| | | | | m) tall. | | |
| 10 | | · | | | | |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless | | |
| | 22 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. | | |
| 50% of total cover: 11 | 20% of | total cover: | 4.4 | | | |
| 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 | | · | | Vegetation | | |
| | 0 | = Total Cove | r | Present? Yes No | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | | | |
| Remarks: (Include photo numbers here or on a separate s | heet) | | | | | |
| | 1001.) | | | | | |
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| Profile Des | cription: (Describe t | o the dep | oth needed to docur | nent the | indicator | or confirm | the absence of in | dicators.) |
|-------------|------------------------------|-----------|---------------------------------|--------------|--------------------|------------------|-------------------|---------------------------------------------------------------------|
| Depth | Matrix | | Redo | x Feature | s | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-10 | 10YR 5/1 | 85 | 7.5YR 4/6 | 15 | C | PL/M | SICL | |
| 10-16 | 10YR 6/1 | 80 | 7.5YR 4/6 | 20 | С | PL/M | SIC | |
| | | | | | | | | |
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| | | | | | | | ² l t' | |
| Hydric Soil | Concentration, D=Deple | etion, RM | EReduced Matrix, MS | S=Maske | d Sand Gra | ains. | | re Lining, M=Matrix. for Problematic Hydric Soils ³ : |
| Histoso | | | Dark Surface | (97) | | | | luck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | · · · | ace (S8) (N | ILRA 147. | | Prairie Redox (A16) |
| | listic (A3) | | Thin Dark Su | | | | | RA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | • | , . | , , | • | ont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | (ML | RA 136, 147) |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (I | F6) | | Very S | hallow Dark Surface (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Date | k Surface | e (F7) | | Other (| Explain in Remarks) |
| Thick D | ark Surface (A12) | | Redox Depre | | | | | |
| - | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | ses (F12) (| LRR N, | | |
| | A 147, 148) | | MLRA 13 | | | | <u>,</u> | |
| - | Gleyed Matrix (S4) | | Umbric Surfa | . , | • | | | s of hydrophytic vegetation and |
| - | Redox (S5) | | Piedmont Flo | | | | | hydrology must be present, |
| | d Matrix (S6) | | Red Parent N | /laterial (F | -21) (MLR | A 127, 147 | y unless d | listurbed or problematic. |
| | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric Soil Pres | ent? Yes 🥙 No |
| Remarks: | | | | | | | | |
| 1 | | | | | | | | |



Photo 1 Wetland data point wpoe010e_w facing northeast



Photo 2 Wetland data point wpoe010e_w facing southwest

| Project/Site: Atlantic Coast Pipeline | City/County: Poc | ahontas County | Sampling Date: 3/29/2016 | |
|-----------------------------------------------------------------------|--------------------|----------------------------------------|---------------------------|--|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoe010_u | |
| Investigator(s): CG, SH | Section, Townshi | ip, Range: <u>No PLSS</u> in this area | | |
| Landform (hillslope, terrace, etc.): Slope | | e, convex, none): <u>none</u> | ·- | |
| Subregion (LRR or MLRA): S Lat: 38.3008 | 3558 | _ Long: <u>-79.87030117</u> | Datum: WGS 1984 | |
| Soil Map Unit Name: | | NWI classific | ation: None | |
| Are climatic / hydrologic conditions on the site typical for this tim | ie of year? Yes | No (If no, explain in R | emarks.) | |
| Are Vegetation, Soil, or Hydrology signif | icantly disturbed? | Are "Normal Circumstances" p | resent? Yes 🖌 No | |
| Are Vegetation, Soil, or Hydrology natur | ally problematic? | (If needed, explain any answe | rs in Remarks.) | |
| | | | | |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes Yes Yes | マ マ マ | Is the Sampled Area within a Wetland? | Yes | No | v |
|---------------------------------------------------------------------------------------|-------------------|-------------|---------------------------------------|-----|----|---|
| Remarks: | | | | | | |

| 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 | 3) Moss Trim Lines (B16) | | | |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) | | | |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) | Crayfish Burrows (C8) | | | |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) | | | |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) | | | |
| Iron Deposits (B5) | Geomorphic Position (D2) | | | |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) | | | |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) | | | |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) | | | |
| Field Observations: | | | | |
| Surface Water Present? Yes No 🔽 Depth (inches): | | | | |
| Water Table Present? Yes No <u></u> | | | | |
| | d Hydrology Present? Yes No | | | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if | available: | | | |
| | | | | |
| Remarks: | | | | |
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Sampling Point: wpoe010_u

| , , , | Abaaluta | - Deminent In | | Deminence Test werkehest |
|---------------------------------------------------------------------------------|-------------|-------------------------------|-----------------------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: 30) | Absolute | Dominant Ir Species? | | Dominance Test worksheet: |
| <u></u>) | <u>90</u> | Yes | <u>Status</u> FACU | Number of Dominant Species |
| 1. Pinus strobus | 30 | res | 1700 | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:4 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | . <u> </u> | | That Are OBL, FACW, or FAC: 25 (A/B) |
| 6 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | 90 | | | Total % Cover of: Multiply by: |
| | | = Total Cover | • | |
| 50% of total cover: 45 | 20% of | total cover: | 18 | OBL species x 1 = |
| 15 | | | | FACW species x 2 =0 |
| Sapling/Shrub Stratum (Plot size: 13) | | | | |
| 1 | | | | FAC species $x_3 =$ |
| | | | | FACU species $\frac{92}{x 4} = \frac{368}{x 4}$ |
| 2 | | · | | |
| 3 | | | | UPL species $0 \times 5 = 0$ |
| | | | | Column Totals: 94 (A) 374 (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =3.97 |
| | | | | |
| 6 | | <u> </u> | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | · | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is $≤3.0^1$ |
| | 0 | = Total Cover | | |
| 50% of total cover:0 | | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 0 | total cover. | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | | | | . , |
| 1. Rosa multiflora | 2 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| _{2.} Potentilla canadensis | 2 | Yes | | The disease of the data and the data and the data is measured |
| _{3.} Carex blanda | 2 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Ū |
| | | | | Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| | | | | 0 |
| 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. |
| 10 | | <u> </u> | | , |
| 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: | | |
| | 20% 0 | total cover. | | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1 | | | | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | | | | Present? Yes No |
| | - | | | |
| | 0 | = Total Cover | | |
| 50% of total cover:0 | 0 | = Total Cover total cover: | | |
| | 0 20% of | | | |
| 50% of total cover:0 Remarks: (Include photo numbers here or on a separate s | 0 20% of | | | |
| | 0 20% of | | | |

| Profile Desc | cription: (Describe t | o the dept | th needed to docun | nent the indica | tor or confirm | n the absence of in | dicators.) | |
|----------------|------------------------------|--------------|--------------------|--------------------------|----------------------------------|-------------------------------|---------------------|-----------|
| Depth | Matrix | | | x Features | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> Тур | be ¹ Loc ² | Texture | Remarks | 6 |
| 0-4 | 10YR 4/3 | 100 | | | | SICL | | |
| 4-14 | 10YR 5/6 | 100 | | | | CL | | |
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| ¹ T | | | Deduced Metric M | Maskad Care | | ² l anations DL Da | a Lining M. Matri | |
| Hydric Soil | oncentration, D=Deple | etion, RIVI= | Reduced Matrix, Ma | S=IVIASKED Sand | d Grains. | ² Location: PL=Po | for Problematic I | |
| Histosol | | | Dark Surface | (87) | | | luck (A10) (MLRA | • |
| | pipedon (A2) | | | low Surface (St | B) (MI RA 147 | | Prairie Redox (A16 | |
| | istic (A3) | | | rface (S9) (MLF | | | RA 147, 148) | , |
| | en Sulfide (A4) | | Loamy Gleye | · · · | ,, . , | • | ont Floodplain Soil | s (F19) |
| | d Layers (A5) | | Depleted Mat | . , | | | RA 136, 147) | () |
| 2 cm Mi | uck (A10) (LRR N) | | Redox Dark S | Surface (F6) | | Very S | hallow Dark Surfa | ce (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface (F7) | Other | Explain in Remark | is) | |
| Thick Da | ark Surface (A12) | | Redox Depre | ssions (F8) | | | | |
| | Mucky Mineral (S1) (L | RR N, | | ese Masses (F1 | 12) (LRR N, | | | |
| | A 147, 148) | | MLRA 13 | • | | 2 | | |
| | Gleyed Matrix (S4) | | | ce (F13) (MLR | | | s of hydrophytic ve | • |
| | Redox (S5) | | | odplain Soils (F | <i>,</i> . | • | hydrology must be | |
| | d Matrix (S6) | | Red Parent N | laterial (F21) (N | MLRA 127, 14 | 7) unless c | listurbed or proble | matic. |
| Restrictive | Layer (if observed): | | | | | | | |
| Туре: | | | | | | | | |
| Depth (in | ches): | | | | | Hydric Soil Pres | ent? Yes | No |
| Remarks: | | | | | | 1 | | |
| | | | | | | | | |



Photo 1 Upland data point wpoe010_u facing north



Photo 2 Upland data point wpoe010_u facing south

| Project/Site: Atlantic Coast Pipeline | City/County: Pod | cahontas County | Sampling Date: 5/12/2016 |
|------------------------------------------------------------------------|-------------------|----------------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa402f_w |
| Investigator(s): GB, SA | Section, Townsh | ip, Range: <u>No PLSS</u> in this area | |
| Landform (hillslope, terrace, etc.): <u>slope</u> | | e, convex, none): <u>concave</u> | |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.30210</u> | 0139 | Long: <u>-79.84682348</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI classific | ation: None |
| Are climatic / hydrologic conditions on the site typical for this time | e of year? Yes 🗹 | No (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology signifi | cantly disturbed? | Are "Normal Circumstances" p | oresent? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natura | ally problematic? | (If needed, explain any answe | rs in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map sho | wing sampling po | pint 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: | | | | | | |

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) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) |
| ✓ Saturation (A3) | |
| Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Water-Stained Leaves (B9) | Dry-Season Water Table (C2) |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) |
| Field Observations: | |
| | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) ✓ No Depth (inches): 0 | Wetland Hydrology Present? Yes <u>V</u> No |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 | |
| Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) ✓ No Depth (inches): 0 | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) | |
| 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 inspective 0 0 | |
| 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 inspective 0 0 | |

Sampling Point: wpoa402f_w

| | Abaaluta | Dominant Ir | diantar | |
|---------------------------------------------------------|---------------------|---------------|---------|-------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % Cover | | Status | Dominance Test worksheet: |
| Acer rubrum | 12 | Yes | FAC | Number of Dominant Species That Are OBL_EACW or EAC: 9 (A) |
| 2. Carya glabra | 10 | Yes | FACU | That Are OBL, FACW, or FAC: 9 (A) |
| | | | | Total Number of Dominant |
| 3. Nyssa sylvatica | 10 | Yes | FAC | Species Across All Strata: 13 (B) |
| _{4.} Carya ovata | 10 | Yes | FACU | |
| 5 | | | | Percent of Dominant Species |
| | | | | That Are OBL, FACW, or FAC:69.23076923 (A/B) |
| 6 | | • | | Prevalence Index worksheet: |
| 7 | 42 | • | | Total % Cover of: Multiply by: |
| | | = Total Cover | | |
| 50% of total cover: 21 | 20% of | total cover: | 8.4 | |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x 2 = $ |
| _{1.} Acer pensylvanicum | 12 | Yes | FACU | FAC species $56 	 x 3 = 168$ |
| 2. Acer rubrum | 10 | Yes | FAC | FACU species 40 x 4 = 160 |
| 3. Ostrya virginiana | 8 | Yes | FACU | UPL species x 5 = 0 |
| | 8 | Yes | FAC | 108 352 |
| 4. Nyssa sylvatica | 0 | 165 | FAC | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = $B/A = 3.25$ |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | ✓ 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is $≤3.0^1$ |
| | 38 | = Total Cover | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:19 | 20% of | total cover: | 7.6 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1 Pilea fontana | 7 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. Laportea canadensis | 6 | Yes | FAC | |
| | 5 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Carex blanda | | | | be present, unless disturbed or problematic. |
| 4. Viola sagittata | 5 | Yes | FAC | Definitions of Four Vegetation Strata: |
| _{5.} Viola cucullata | 5 | Yes | FACW | Jan San San San San San San San San San S |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | • | | height. |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | | | m) tall. |
| 11. | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 28 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 14 | | total cover: | | ······································ |
| 20 | 2070 01 | 10101 00V01. | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1 | | <u> </u> | | |
| 2 | | <u> </u> | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | Hydrophytic Vegetation |
| | | | | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | | = Total Cover | • | |
| | | total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | neer.y | | | |
| | | | | |
| | | | | |
| | | | | |

| Depth | Matrix | | Rode | ox Feature | s | | | |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | <u>% realure</u> % | Type ¹ | Loc ² | Texture | Remarks |
| 0-7 | 10YR 4/2 | 92 | 10YR 5/8 | 8 | C | PL/M | SCL | rock at 7" |
| | | | | | | | | |
| | | | | | · | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | · | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion. RM | =Reduced Matrix. M | S=Masked | d Sand Gra | ains. | ² Location: 1 | PL=Pore Lining, M=Matrix. |
| | Indicators: | | | | | | | cators for Problematic Hydric Soils ³ : |
| Black H Hydrog Stratifie 2 cm M Deplete Thick D | I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L | 、 , | Dark Surface Polyvalue Be Thin Dark Surface Loamy Gleye ✓ Depleted Ma Redox Dark Depleted Da Redox Depresent Iron-Mangan | elow Surfa urface (S9 ed Matrix (atrix (F3) Surface (F rk Surface essions (F |) (MLRA 1 (F2) =6) = (F7) :8) | 47, 148) | 148) | 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| Sandy (Sandy I Stripped | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed): | | MLRA 13 Umbric Surfa Piedmont Flo Red Parent I | ace (F13) oodplain S | Soils (F19) | (MLRA 14 | 8) w | dicators of hydrophytic vegetation and vetland hydrology must be present, nless disturbed or problematic. |
| Type: ro | ck | | | | | | Ubudaia O - | |
| Depth (ir | icnes): | | | | | | Hyaric So | il Present? Yes 🥙 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</u> a | area |
| Landform (hillslope, terrace, etc.): slope | | cave, convex, none): <u>concave</u> | Slope (%): <u>30</u> |
| Subregion (LRR or MLRA): S Lat: 38.3019885 | 57 | Long: <u>-79.84674168</u> | Datum: WGS 1984 |
| Soil Map Unit Name: | | NWI clas | sification: None |
| Are climatic / hydrologic conditions on the site typical for this time of | f year? Yes 🧾 | No (If no, explain | in Remarks.) |
| Are Vegetation, Soil, or Hydrology significar | ntly disturbed? | Are "Normal Circumstance | es" present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally | problematic? | (If needed, explain any and | swers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showi | ng sampling | point locations, transe | cts, 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> | Is the Sampled Area within a Wetland? | Yes | No | |
|---------------------------------------------------------------------------------------|-------------------|-------------------------------------------|------------------------------------------|-------------|----|--|
| Remarks: Upland data point taken adjacent to a s | saturated PFO | seep wetland lo | ocated on a steep, rocky, concave | side slope. | | |

| | 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) |
| Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Second Se | Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) oils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) |
| Water-Stained Leaves (B9) Aquatic Fauna (B13) | Microtopographic Relief (D4) FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes No 🔽 Depth (inches): | |
| Water Table Present? Yes No <u></u> | |
| Saturation Present? Yes <u>No</u> Depth (inches): | Wetland Hydrology Present? Yes No/ |
| I (Includes capillary frinde) | |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | L ctions), if available: |

Sampling Point: wpoa402_u

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|----------------------------------------------------------|----------|--------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | 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: <u>40</u> (A/B) |
| 6. Quercus montana | 5 | No | | Prevalence Index worksheet: |
| 7 _. Carya glabra | | No | FACU | |
| | | = Total Cove | | Total % Cover of: Multiply by: |
| 50% of total cover: <u>35</u> | 20% of | total cover: | 14 | OBL species $0 	 x 1 = 0$ |
| 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:119 (A)444 (B) |
| 5. Pinus strobus | 4 | No | FACU | |
| 6. Ostrya virginiana | 2 | No | FACU | Prevalence Index = B/A =3.73 |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | ······ | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | · | 2 - Dominance Test is >50% |
| 9 | 45 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 22.5 | | = Total Cove | r 9 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover:22.5 | 20% of | total cover: | 3 | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: <u>5</u>) | • | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex blanda | 2 | Yes | FAC | |
| 2. Uvularia perfoliata | 2 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| 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 | | | | , |
| · · · · | 4 | = Total Cove | | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 2 | | total cover: | | |
| Woody Vine Stratum (Plot size: 30) | 2070.01 | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1 | | | · | |
| 2 | | | ······ | |
| 3 | | · | ······ | |
| 4 | | | <u> </u> | Hydrophytic |
| 5 | | <u> </u> | | Vegetation |
| | | = Total Cove | | Present? Yes No V |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate sl | heet.) | | | |
| | | | | |
| | | | | |
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| | | | | |
| | | | | |

| Depth | Matrix | | Redo | x Features | | | | |
|----------|---------------------------------------|--------------|-------------------------|------------|-------------------|------------------|-----------------|---------------------------------------------------------------------------------|
| (inches) | Color (moist) | % | Color (moist) | | Type ¹ | Loc ² | Texture | Remarks |
| 0-2 | 10YR 2/2 | 100 | | | | | L | |
| 2-11 | 10YR 5/6 | 100 | | | | | SCL | rock at 11" |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 17 | | | | | | | 21 | |
| | Concentration, D=Dep I Indicators: | netion, RIVI | =Reduced Matrix, M | S=Masked S | and Gra | uns. | | PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ : |
| Histoso | bl (A1) | | Dark Surface | () | | | 2 | 2 cm Muck (A10) (MLRA 147) |
| | Epipedon (A2) Histic (A3) | | Polyvalue Be | | | | 148) | Coast Prairie Redox (A16) (MLRA 147, 148) |
| | jen Sulfide (A4) | | Loamy Gleye | | | ,, | F | Piedmont Floodplain Soils (F19) |
| | ed Layers (A5) | | Depleted Ma | | , | | | (MLRA 136, 147) |
| 2 cm N | luck (A10) (LRR N) | | Redox Dark | | | | | Very Shallow Dark Surface (TF12) |
| | ed Below Dark Surfac | e (A11) | Depleted Da | | =7) | | (| Other (Explain in Remarks) |
| | Dark Surface (A12) | | Redox Depre | · · · | | | | |
| | Mucky Mineral (S1) (I | LRR N, | Iron-Mangan | | (F12) (L | _RR N, | | |
| | A 147, 148) Gleyed Matrix (S4) | | MLRA 13 Umbric Surfa | , | 1 0 4 1 2 | 6 100) | ³ In | dicators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | · / · | | | | etland hydrology must be present, |
| | d Matrix (S6) | | Red Parent I | • | . , | • | | nless disturbed or problematic. |
| | Layer (if observed): | | | | , (| , | / u | |
| Type: ro | | | | | | | | |
| | nches): <u>11</u> | | | | | | Hydric Soi | il 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: | Pocahontas County | Sampling Date: 5/10/2016 |
|---------------------------------------------------------------------------|-----------------|------------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: wpoa400e_w |
| Investigator(s): GB, SA | Section, Tow | nship, Range: <u>No PLSS in this are</u> | |
| Landform (hillslope, terrace, etc.): depression | | cave, convex, none): <u>concave</u> | Slope (%): <u>4</u> |
| Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.2959087</u> | 4 | Long: <u>-79.83422159</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 significan | ntly disturbed? | Are "Normal Circumstances" | ' present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology naturally | problematic? | (If needed, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map showing | ng 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: | | | | | | |

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: | 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 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 <u></u> No Depth (inches): 2 | |
| | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): | Wetland Hydrology Present? Yes <u>✓</u> No |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): | |
| Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No | |
| 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): | |
| Water Table Present? Yes No ✓ Depth (inches): | |
| Water Table Present? Yes No ✓ Depth (inches): | |

Sampling Point: wpoa400e_w

| | Absolute | Dominant I | diaatar | Dominance Test worksheet: |
|---------------------------------------------------------|----------|--------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| · · · · · · · · · · · · · · · · · · · | | | | Number of Dominant Species That Are OBL EACW or EAC: 2 (A) |
| | | · | | 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 | · | · | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | Tatal O | | Total % Cover of: Multiply by: |
| | | = Total Cove | 0 | OBL species 40 x 1 = 40 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 40 00 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x z = $ |
| 1 | | | | FAC species $0 	 x 3 = 0$ |
| | | | | FACU species $5 	 x 4 = 20$ |
| 2 | · | · | <u> </u> | |
| 3 | | | | $\begin{array}{c} \text{UPL species} & 0 & x 5 = 0 \\ \text{Oplane Table} & 85 & (1) & 140 \\ \text{Oplane Table} & 0 & (1) \\ \text{UPL species} & 0 & (1) \\$ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =1.64 |
| 6 | · | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | · | | 2 - Dominance Test is >50% |
| 9 | | | | ✓ 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | |
| 50% of total cover:0 | 20% of | total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| Leersia oryzoides | 40 | Vaa | OBL | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | Yes | | |
| _{2.} Poa trivialis | 20 | Yes | FACW | |
| _{3.} Persicaria lapathifolia | 15 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Galium aparine | 5 | No | FACU | be present, unless disturbed or problematic. |
| | 5 | | | Definitions of Four Vegetation Strata: |
| 5. Juncus effusus | 5 | No | FACW | |
| 6 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 | | | | more in diameter at breast height (DBH), regardless of height. |
| | | | | neight. |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | | | |
| 11 | 05 | · | | 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 | 5 20% of | total cover: | 17 | We a decide a Allow a decide a second at the element of the |
| 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 Cove | r | Present? Yes <u>V</u> No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| | | | | |
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| | cription: (Describe t | o the dep | | | | or confirm | the absence of | f indicators.) | |
|------------------------|----------------------------------------------------------|-----------|-------------------------------------------------------------|-------------------------|-------------------|------------------|----------------------------|--------------------------------------------------------------------------------------------------------|--------------|
| Depth | Matrix | | | x Feature | 4 | | _ | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> | Type' | Loc ² | <u>Texture</u> | 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 | | |
| | | | | | | | | | |
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| | · | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| ¹ Type: C=C | Concentration, D=Deple | etion. RM | =Reduced Matrix. MS | S=Masked | Sand Gra | ains. | ² Location: PL= | Pore Lining, M=Matrix | ζ. |
| Hydric Soil | , , | , | , | | | | | ors for Problematic H | |
| Black H | l (A1) pipedon (A2) listic (A3) en Sulfide (A4) | | Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye | low Surfa rface (S9) |) (MLRA 1 | | 148) <u> </u> | m Muck (A10) (MLRA ast Prairie Redox (A16 MLRA 147, 148) dmont Floodplain Soil: | 3) |
| Stratifie | d Layers (A5) | | Depleted Ma | trix (F3) | | | () | MLRA 136, 147) | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | -6) | | Ver | y Shallow Dark Surfac | ce (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Dar | k Surface | e (F7) | | Oth | er (Explain in Remark | s) |
| Thick D | ark Surface (A12) | | Redox Depre | ssions (F | 8) | | | | |
| | Mucky Mineral (S1) (L A 147, 148) | RR N, | Iron-Mangan MLRA 13 | | es (F12) (| LRR N, | | | |
| | , , | | | , | | 6 400) | ³ Indiac | ators of hydrophytic yr | actation and |
| | Gleyed Matrix (S4) | | Umbric Surfa | | • | | | ators of hydrophytic ve | • |
| | Redox (S5) | | Piedmont Flo | • | • • | • | • | and hydrology must be | • |
| | d Matrix (S6) | | Red Parent N | naterial (F | 21) (MLR | a 127, 147 |) unles | ss disturbed or probler | natic. |
| | Layer (if observed): | | | | | | | | |
| Type: <u>cla</u> | | | | | | | | | |
| Depth (in | nches): <u>6</u> | | | | | | Hydric Soil P | resent? Yes 🖌 | No |
| Remarks: | | | | | | | | | |
| i i | | | | | | | | | |



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: I | Pocahontas County | _ Sampling Date: 5/10/2016 | | | | |
|---------------------------------------------------------------------------|------------------|------------------------------------------------|-----------------------------|--|--|--|--|
| Applicant/Owner: Dominion | | State: WV | | | | | |
| Investigator(s): | Section, Towr | Section, Township, Range: No PLSS in this area | | | | | |
| Landform (hillslope, terrace, etc.): ridge shoulder | | ave, convex, none): none | | | | | |
| Subregion (LRR or MLRA): S Lat: 38.295965 | 515 | 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 of | of year? Yes | No (If no, explain in I | Remarks.) | | | | |
| Are Vegetation, Soil, or Hydrology significa | antly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No | | | | |
| Are Vegetation, Soil, or Hydrology naturally | ly problematic? | (If needed, explain any answ | ers 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 | V V V | Is the Sampled Area within a Wetland? | Yes | No | <u> </u> | | |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------|---------------------------------------|-----|----|----------|--|--|
| 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 (| Moss Trim Lines (B16) | | | | |
| Water Marks (B1) Presence of Reduced Iron (C4) | Dry-Season Water Table (C2) | | | | |
| Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) | Crayfish Burrows (C8) | | | | |
| Drift Deposits (B3) Thin Muck Surface (C7) | Saturation Visible on Aerial Imagery (C9) | | | | |
| Algal Mat or Crust (B4) Other (Explain in Remarks) | Stunted or Stressed Plants (D1) | | | | |
| Iron Deposits (B5) | Geomorphic Position (D2) | | | | |
| Inundation Visible on Aerial Imagery (B7) | Shallow Aquitard (D3) | | | | |
| Water-Stained Leaves (B9) | Microtopographic Relief (D4) | | | | |
| Aquatic Fauna (B13) | FAC-Neutral Test (D5) | | | | |
| Field Observations: | | | | | |
| Surface Water Present? Yes No <u></u> | | | | | |
| Water Table Present? Yes No <u></u> | | | | | |
| | nd Hydrology Present? Yes No | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if | f available: | | | | |
| | | | | | |
| Remarks: | | | | | |
| no hydrology indicators present | | | | | |
| | | | | | |
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Sampling Point: wpoa400_u

| | Abaaluta | Dominant I | ndiantar | Dominance Test worksheet: | | | |
|---------------------------------------------------------|---------------------|--------------|----------|-----------------------------------------------------------------------------------------------------------------------|--|--|--|
| Tree Stratum (Plot size: <u>30</u>) | Absolute % Cover | Species? | Status | | | | |
| Fraxinus americana | 25 | Yes | FACU | Number of Dominant Species | | | |
| 1 | 15 | Yes | FACU | That Are OBL, FACW, or FAC: (A) | | | |
| 2. Acer saccharum | 10 | No | FACU | Total Number of Dominant | | | |
| 3. Prunus serotina | | | | Species Across All Strata: 9 (B) | | | |
| 4. Acer rubrum | 5 | No | FAC | Percent of Dominant Species | | | |
| _{5.} Carya ovata | 5 | No | FACU | Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (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 species0 x 1 =0 | | | |
| 15 | 20 % 01 | | | FACW species $\frac{15}{x 2} = \frac{30}{x}$ | | | |
| Sapling/Shrub Stratum (Plot size: 15) | 7 | Vaa | FACU | 10 20 | | | |
| 1. Acer pensylvanicum | 7 | Yes | FACU | 124 406 | | | |
| 2. Robinia pseudoacacia | 6 | Yes | FACU | FACU species $x 4 = $ | | | |
| 3. Fraxinus americana | 5 | Yes | FACU | UPL species $0 \times 5 = 0$ | | | |
| _{4.} Prunus serotina | 5 | Yes | FACU | Column Totals:149 (A)556 (B) | | | |
| 5. Acer saccharum | 5 | Yes | FACU | 2.72 | | | |
| 6. Betula lenta | 3 | No | FACU | Prevalence Index = B/A =3.73 | | | |
| | | | | Hydrophytic Vegetation Indicators: | | | |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation | | | |
| 8 | | | | 2 - Dominance Test is >50% | | | |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ | | | |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting | | | |
| 50% of total cover:15.5 | 20% of | total cover: | 6.2 | | | | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) | | | |
| Ageratina altissima | 15 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 2. Alliaria petiolata | 15 | Yes | FACU | | | | |
| 3. Poa trivialis | 10 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must | | | |
| | | | | be present, unless disturbed or problematic. | | | |
| 4. Asclepias longifolia | 5 | No | FAC | Definitions of Four Vegetation Strata: | | | |
| 5. Packera aurea | 5 | No | FACW | | | | |
| _{6.} Viola hirsutula | 4 | No | FACU | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of | | | |
| 7. Galium aparine | 4 | No | FACU | 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: 29 | 20% of | total cover: | 11.6 | Weedy vine All weedy vines greater than 2.28 ft in | | | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. | | | |
| 1 | | | | hoight | | | |
| 2 | | | | | | | |
| | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | Hydrophytic | | | |
| 5 | | | | Vegetation | | | |
| | 0 | = Total Cove | r | Present? Yes No V | | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | | | | |
| Remarks: (Include photo numbers here or on a separate s | | | | | | | |
| | 1000.) | | | | | | |
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| Profile Desc | cription: (Describe t | o the dept | h needed to docun | nent the ir | ndicator o | or confirm | the absen | ce of indicate | ors.) | |
|-----------------|--------------------------|------------|--------------------|--------------|---------------------|------------------|-----------|----------------|---------------|-----------------------------|
| Depth | Matrix | | Redox Features | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 10YR 3/2 | 100 | | | | | SCL | | | |
| 4-13 | 10YR 5/4 | 100 | | | | | SCL | | | |
| 13-18 | 10YR 5/6 | 100 | | | | | SCL | _ | | |
| | | | | | | | | | | |
| | oncentration, D=Depl | etion, RM= | Reduced Matrix, MS | S=Masked | Sand Gra | | | PL=Pore Lin | 0. | |
| Hydric Soil | | | | | | | Ind | | | lydric Soils ³ : |
| Histosol | () | | Dark Surface | · · · | | | | 2 cm Muck (| <i>,</i> . | |
| | pipedon (A2) | | Polyvalue Be | | · / · | | 148) | Coast Prairie | , | 5) |
| | istic (A3) | | Thin Dark Su | , , | • | 47, 148) | | (MLRA 14 | | |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | | Piedmont Flo | • | s (F19) |
| | d Layers (A5) | | Depleted Mat | . , | | | | (MLRA 13 | | () |
| | uck (A10) (LRR N) | | Redox Dark S | · · | , | | | Very Shallov | | · , |
| - | d Below Dark Surface | (A11) | Depleted Dar | | | | | Other (Expla | in in Remark | S) |
| | ark Surface (A12) | | Redox Depre | • | , | | | | | |
| - | Nucky Mineral (S1) (L | RR N, | Iron-Mangane | | es (F12) (l | .RR N, | | | | |
| | A 147, 148) | | MLRA 130 | • | | (400) | 3, | adiantana af k | | and the second |
| | Gleyed Matrix (S4) | | Umbric Surfa | • • • | | | | ndicators of h | | • |
| | Redox (S5) | | Piedmont Flo | • | , , | • | | wetland hydro | ••• | • |
| | Matrix (S6) | | Red Parent M | iaterial (F2 | | A 127, 147) |) | unless disturb | ed of probler | nauc. |
| | Layer (if observed): | | | | | | | | | |
| Type: <u>no</u> | | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric S | oil Present? | Yes | No |
| Remarks: | | | | | | | | | | |



Photo 1 Upland data point WPOA400_u facing north



Photo 2 Upland data point WPOA400_u facing east