

Seep data point prap011 facing east.



Seep data point prap012 facing west.



Seep data point prap009 facing east.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: | Samplir | ng Date: <u>5/24/2016</u> |
|--|--------------------------------|------------------------------------|-----------------------------|
| Applicant/Owner: Dominion | | | pling Point: <u>prae131</u> |
| Investigator(s): CG, RP | Section, Township, R | | |
| Landform (hillslope, terrace, etc.): road cut | Local relief (concave, co | nvex, none): <u>concave</u> | Slope (%): <u>10</u> |
| Subregion (LRR or MLRA): Lat: 3 | 8.6206533 Lo | ong: <u>-80.1563778</u> | Datum: WGS1984 |
| Soil Map Unit Name: | | NWI classification: U | PL |
| Are climatic / hydrologic conditions on the site typical for t | 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 r | needed, explain any answers in Rer | marks.) |
| | | | |

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: | | | | | | |
| Road cut affects hydrology. | | | | | | |
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HYDROLOGY

| 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) |
| | | | |
| Sediment Deposits (B2) | | Recent Iron Reduction in Tilled S | |
| 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? | Yes No | Depth (inches): | |
| | | | |
| Saturation Present? (includes capillary fringe) | | 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 _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: | Yes <u>/</u> No _ | Depth (inches):0 | |

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

Sampling Point: prae131

| | Absolute | Dominant I | ndicator | Dominance Test worksheet: |
|---|----------|----------------|----------|---|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| 1 none | 0 | | | Number of Dominant Species |
| | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:1 (B) |
| | | | | () |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | Tatal Que | | Total % Cover of: Multiply by: |
| | | = Total Cove | r O | OBL species 0 x 1 = 0 |
| 50% of total cover:0 | 20% of | total cover: | 0 | 80 400 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x^2 = 100$ |
| 1. none | 0 | | | FAC species $2 \times 3 = 6$ |
| | | | | FACU species x 4 =0 |
| 2 | | | | 7 05 |
| 3 | | . <u></u> | | UPL species $\frac{7}{89}$ x 5 = $\frac{35}{201}$ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A = 2.25 |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | |
| 8 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 0 | | | | 2 - Dominance Test is >50% |
| 9 | | | | ✓ 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 |
| | | | | data in Remarks or on a separate sheet) |
| | 70 | N | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Leersia virginica | 70 | Yes | FACW | (|
| _{2.} Packera aurea | 10 | No | FACW | |
| 3. Dryopteris campyloptera | 5 | No | UPL | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Erythronium rostratum | 2 | No | UPL | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5. Acer rubrum | 2 | No | FAC | |
| 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. |
| 10 | | | | |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 89 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 44.5 | 20% of | total cover: | 17.8 | |
| Woody Vine Stratum (Plot size: 30) | | ····· <u> </u> | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | 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: | ~ | |
| | | total cover. | | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docun | nent the i | ndicator | or confirm | n the absence of indicators.) |
|---|---|-------------|--|--|------------------------------|------------------|--|
| Depth | Matrix | | | K Features | | 0 | |
| (inches) | Color (moist) | % | Color (moist) | | Type ¹ | Loc ² | Texture Remarks |
| 0-12 | 10YR 4/3 | 95 | 10YR 4/6 | 5 | C | M | SICL |
| | | · | | | | | |
| | | | | | | | |
| | | · | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM=I | Reduced Matrix, MS | =Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| Black H Hydroge Stratifie 2 cm M Deplete Thick D | (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 I | . , | 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 (F k Surface ssions (F8 | (MLRA 1 F2) (F7) 3) | 47, 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 F | A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) | | MLRA 136 Umbric Surfa Piedmont Flo Red Parent M | , ce (F13) (odplain S | oils (F19) | (MLRA 14 | |
| | Layer (if observed): | | | | _ · / (| | |
| Type: | | | | | | | |
| | ches): | | | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | |
| . comanto. | | | | | | | |



Seep data point prae131 facing south



Seep data point prae131 facing north



Seep data point PRAE134 facing west



Seep data point PRAE133 facing west



Seep data point PRAE132 facing east



Seep data point prap014 facing west.



Seep data point prap015 facing southwest.



Seep data point prap016 facing west.



Seep data point prap017 facing west.



Seep data point prap018 facing west.



Seep data point prap020 facing west.



Seep data point prap019 facing west.



Seep data point prap021 facing west.



Seep data point prap022 facing west.



Seep data point prap023 facing west.



Seep data point prap024 facing northwest.



Seep data point prap025 facing southwest.



Seep data point PRAE100 facing north



Seep data point PRAE101 facing north

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Randolph | San | npling Date: 3/30/2016 |
|--|-----------------------------------|--------------------------|-------------------------------|
| Applicant/Owner: Dominion | | | ampling Point: <u>prae102</u> |
| Investigator(s): CG, SH | Section, Township, Range: | | |
| Landform (hillslope, terrace, etc.): ROAD | Local relief (concave, convex, no | one): none | Slope (%): <u>15</u> |
| Subregion (LRR or MLRA): Lat: 38.60452 | 8 Long: <u>-80</u> | .162635 | Datum: |
| Soil Map Unit Name: | | NWI classification | : UPL |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes 🖌 No | (If no, explain in Remai | rks.) |
| Are Vegetation, Soil, or Hydrology signific | cantly disturbed? Are "Norma | al Circumstances" prese | nt? Yes No 🔽 |
| Are Vegetation, Soil, or Hydrology natura | lly 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: | | | | | |

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 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 <u><</u> No <u>Depth (inches)</u> ; 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: | |
| seep | |
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VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: prae102

| ``` | , | Absolute | Dominant | 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 | | | | | Species Across All Strata: (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 Cove | er | Total % Cover of: Multiply by: |
| | 50% of total cover: 0 | | f total cover: | ^ | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot siz | 15 | | | | FACW species $5 	 x 2 = 10$ |
| 1. none | | 0 | | | FAC species x 3 = 0 |
| | | | <u> </u> | | FACU species $0 	 x 4 = 0$ |
| 2 | | | · | | |
| 3 | | | | | UPL species $0 \times 5 = 0$ |
| 4 | | | <u> </u> | | Column Totals: (A) (B) |
| 5 | | | | | |
| 6 | | | | | Prevalence Index = B/A =2 |
| | | | | | 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: 0 | 20% of | f total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: | 5) | | | | data in Remarks or on a separate sheet) |
| 1 Juncus effusus | / | 5 | Yes | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | | |
| 2 | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | - <u> </u> | | be present, unless disturbed or problematic. |
| 4 | | | . <u> </u> | | 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 | | | <u> </u> | | m) tall. |
| 11 | | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | 5 | = Total Cove | r | of size, and woody plants less than 3.28 ft tall. |
| | 50% of total cover: 2.5 | | f total cover: | | |
| Woody Vine Stratum (Plot size | | | | | Woody vine – All woody vines greater than 3.28 ft in |
| 1. none |) | 0 | | | height. |
| 1 | | | | | |
| 2 | | | <u> </u> | | |
| 3 | | | <u> </u> | | |
| 4 | | | | | the beaute de |
| 5 | | | | | Hydrophytic Vegetation |
| <u> </u> | | - | | | Present? Yes V No |
| | 50% of total cover: 0 | | = Total Cove | ~ | |
| | | | f total cover: | | |
| Remarks: (Include photo numb | ers here or on a separate s | heet.) | | | |
| Few plants present due to being | a road and dormant seaso | n. | | | |
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| Profile Desc | cription: (Describe to | the depth | needed to docum | nent the ir | ndicator o | or confirm | the absence of | indicators.) | |
|--------------|--|-------------|-------------------------------|----------------|----------------------|------------------|----------------------|--------------------------------------|----------------|
| Depth | Matrix | | | Redox Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Rema | rks |
| 0-4 | 2.5Y 4/3 | 95 10 | 0YR 4/6 | 5 | С | М | CL | | |
| | | | | | | | | | |
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| | oncentration, D=Deple | etion, RM=R | educed Matrix, MS | =Masked | Sand Gra | iins. | | Pore Lining, M=Ma | |
| Hydric Soil | | | | | | | | rs for Problemation | • |
| Histosol | () | | Dark Surface | . , | | | | n Muck (A10) (MLF | , |
| | pipedon (A2) | | Polyvalue Bel | | | , | · <u> </u> | st Prairie Redox (A | .16) |
| | istic (A3) | | Thin Dark Sur | | | 47, 148) | • | ILRA 147, 148) | |
| | en Sulfide (A4) | | Loamy Gleye | | -2) | | | mont Floodplain S | oils (F19) |
| | d Layers (A5) | | Depleted Mat | . , | 2) | | • | ILRA 136, 147) | |
| | uck (A10) (LRR N) d Below Dark Surface | (11) | Redox Dark S Depleted Darl | | , | | | Shallow Dark Sur (Explain in Rema | · · |
| · | ark Surface (A12) | (ATT) | Redox Depres | | . , | | | | ains) |
| | /lucky Mineral (S1) (LF | RN | Iron-Mangane | | , | RRN | | | |
| | A 147, 148) | (i (i (i | MLRA 136 | | .3 (1 12) (E | , | | | |
| | Gleyed Matrix (S4) | | Umbric Surfac | | MLRA 13 | 6, 122) | ³ Indicat | tors of hydrophytic | vegetation and |
| | Redox (S5) | | Piedmont Flo | . , . | | | | nd hydrology must | 0 |
| | Matrix (S6) | | Red Parent M | • | . , | • | • | s disturbed or prob | • |
| Restrictive | aver (if observed) | | | ` | , \ | | | r | |
| Type: R | DADBED | | | | | | | | |
| Depth (in | 4 | | _ | | | | Hydric Soil Pr | esent? Yes | No 🖌 |
| | ······,· | | _ | | | | | | |

Remarks:

Landscape position inappropriate for redox depressions indicator.



Seep data point prae102 facing west



Seep data point PRAE104 facing north



Seep point PRAE143 facing north



Seep data point PRAE138 facing west

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Randolph | 1 | _ Sampling Date: 4/16/2016 |
|---|--|---|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: prac107 |
| Investigator(s): Team C | Section, Township, Ra | | |
| Landform (hillslope, terrace, etc.): Road seep | Local relief (concave, con | vex, none): <u>none</u> | Slope (%): <u>2</u> |
| Subregion (LRR or MLRA): Lat: 38.5 | 5936166 Lor | ng: <u>-80.1656347</u> | Datum: WGS1984 |
| Soil Map Unit Name: | | NWI classifi | cation: UPL |
| 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 no | eeded, explain any answe | ers in Remarks.) |
| Subregion (LRR or MLRA): Lat: 38.5 Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrologys | 5936166 Lor is time of year? Yes No significantly disturbed? Are | ng:80.1656347 NWI classifi (If no, explain in F "Normal Circumstances" | Datum: WGS1984 cation: UPL Remarks.) present? Yes <u>/</u> No |

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: | | | | | |
| Seep in old logging road | | | | | |
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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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on L Water Marks (B1) Presence of Reduced Iron (Sediment Deposits (B2) Recent Iron Reduction in Til 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) 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): 0 Saturation Present? Yes No Depth (inches): 0 | Wetland Hydrology Present? Yes <u> / No</u> No |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous i | nspections), if available: |
| | nspections), if available: |

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

Sampling Point: prac107

| · · · · · · · · · · · · · · · · · · · | Al l. (- | Dentant | Peeter | Deminence Test werderbest |
|---|------------------|--------------------------------|----------|---|
| Tree Stratum (Plot size:30) | Absolute % Cover | Dominant Ir <u>Species?</u> | | Dominance Test worksheet: |
| Tree Stratum (Plot size:30) | 0 | Species: | 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:1 (B) |
| 4 | | | | () |
| | | - <u> </u> | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | - <u> </u> | | |
| | 0 | = Total Cover | | 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 30 x 2 = 60 |
| none | 0 | | | FAC species $0 	 x 3 = 0$ |
| | | | <u> </u> | 0 |
| 2 | | | | FACU species $0 x 4 = 0$ |
| 3 | | | | UPL species $x 5 = $ |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =2 |
| 6 | | <u> </u> | | 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 | | f total cover: | 0 | 4 - Morphological Adaptations ¹ (Provide supporting |
| F | 20% 0 | r total cover: | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | o . | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex grayi | 25 | Yes | FACW | |
| _{2.} Juncus effusus | 5 | No | FACW | |
| 3 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | - <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 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 30 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 15 | 20% of | f total cover: | 6 | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| 1. none | 0 | | | height. |
| l. <u></u> | | | | |
| 2 | | - <u> </u> | | |
| 3 | | | | |
| 4 | | <u> </u> | | Hydrophytic |
| 5 | | | | Vegetation |
| | _ | = Total Cover | | Present? Yes <u>V</u> No |
| 50% of total cover:0 | - | | 0 | |
| | | l total cover: | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| Profile Des | cription: (Describe t | o the depth | needed to docur | nent the ind | licator c | or confirm | the absence of indicators.) |
|------------------------|---------------------------------------|-------------|------------------|---------------|-------------------|------------------|--|
| Depth | Matrix | | Redo | x Features | | | |
| (inches) | Color (moist) | % | Color (moist) | | Type ¹ | Loc ² | Texture Remarks |
| 0-18 | 5 Y 4/4 | 100 | | | | | SL |
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| | | | | | | | |
| | | | | | | | |
| ¹ Type: C=C | concentration, D=Deple | etion. RM=R | educed Matrix, M | S=Masked S | and Gra | ins | ² Location: PL=Pore Lining, M=Matrix. |
| | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| Histoso | | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) |
| | pipedon (A2) | | Polyvalue Be | · · / | (S8) (M | LRA 147. | |
| | listic (A3) | | Thin Dark Su | | | | (MLRA 147, 148) |
| | en Sulfide (A4) | | Loamy Gleye | . , . | | , -, | 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 | · · / | 7) | | Other (Explain in Remarks) |
| | ark Surface (A12) | . , | Redox Depre | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | (F12) (L | .RR N, | |
| | A 147, 148) | | MLRA 13 | 6) | | | |
| Sandy (| Gleyed Matrix (S4) | | Umbric Surfa | | LRA 136 | 6, 122) | ³ Indicators of hydrophytic vegetation and |
| | Redox (S5) | | Piedmont Flo | odplain Soils | s (F19) (| (MLRA 148 | |
| Stripped | d Matrix (S6) | | Red Parent M | Aaterial (F21 |) (MLRA | A 127, 147 | unless disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | |
| Type: | | | | | | | |
| Depth (in | | | | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | 1 |
| | il indicators present | | | | | | |

to hydric soil indicators present



Seep data point PRAC107 facing southeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Randolph | Samplir | ng Date: <u>6/2/2016</u> |
|---|-------------------------------------|-----------------------------|-----------------------------|
| Applicant/Owner: Dominion | | | oling Point: <u>prae140</u> |
| Investigator(s): CG, RP | Section, Township, Range: | | |
| Landform (hillslope, terrace, etc.): road | Local relief (concave, convex, non | e): concave | Slope (%): <u>10</u> |
| Subregion (LRR or MLRA): Lat: 38.5 | 83916 Long: <u>-80.1</u> | 5837 | Datum: |
| Soil Map Unit Name: | | NWI classification: P | UB |
| Are climatic / hydrologic conditions on the site typical for this | s time of year? Yes 🖌 No (| lf no, explain in Remarks.) |) |
| Are Vegetation, Soil, or Hydrologys | ignificantly disturbed? Are "Normal | Circumstances" present? | Yes No |
| Are Vegetation, Soil, or Hydrology n | aturally problematic? (If needed, e | xplain any answers in Ren | narks.) |
| | | | |

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: | | | | | |

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

Sampling Point: prae140

| | 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: 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: 0 (A/B) |
| 6 | | | | |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | r | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | ~ | OBL species x 1 = |
| 45 | 20 /8 01 | | | FACW species x 2 = |
| Sapling/Shrub Stratum (Plot size: 15) | 0 | | | FAC species x 3 = |
| 1. none | 0 | | | |
| 2 | | | | FACU species x 4 = |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A = |
| 6 | | | | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | |
| | 0 | = Total Cove | r | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 0 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | | | data in Remarks or on a separate sheet) |
| Herb Stratum (Plot size: 5) | 0 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. <u>1011</u> | 0 | | | |
| 2 | | | | 1 maliante en efilosofica en il en el suette e el la sete en secont |
| 3 | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4 | | | | |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | Sapling/Shrub – Woody plants, excluding vines, less |
| 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | | | |
| 11 | 0 | | <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: 0 | 20% of | total cover: | 0 | 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 | | Present? Yes No V |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| No veg present | , | | | |
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| Profile Desc | ription: (Describe te | o the depth n | eeded to docur | nent the in | dicator o | or confirm | the abse | ence of indicators.) | |
|-------------------------|--------------------------------|---------------|------------------|---------------------|-------------------|------------------|-----------------------|--------------------------------------|-------------------|
| Depth | Matrix | | | x Features | | | | | |
| (inches) | Color (moist) | % (| Color (moist) | % | Type ¹ | Loc ² | Textur | e Rem | arks |
| | | | | | | | | | |
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| | | | | | | | | | |
| ¹ Type: C=Co | oncentration, D=Deple | etion, RM=Re | duced Matrix, MS | S=Masked | Sand Gra | ins. | ² Locatior | n: PL=Pore Lining, M=M | latrix. |
| Hydric Soil I | | • | | | | | | ndicators for Problema | |
| Histosol | (A1) | | Dark Surface | e (S7) | | | | 2 cm Muck (A10) (MI | _RA 147) |
| | pipedon (A2) | _ | Polyvalue Be | · · · | e (S8) (M | LRA 147, | 148) | Coast Prairie Redox | , |
| Black Hi | | | Thin Dark Su | | | | , | | , |
| Hydroge | n Sulfide (A4) | | Loamy Gleye | ed Matrix (F | -2) | | | Piedmont Floodplain | Soils (F19) |
| Stratified | Layers (A5) | _ | Depleted Ma | trix (F3) | | | | (MLRA 136, 147) | |
| 2 cm Mu | ck (A10) (LRR N) | _ | Redox Dark | Surface (F6 | 5) | | _ | Very Shallow Dark S | urface (TF12) |
| Depleted | Below Dark Surface | (A11) | Depleted Date | rk Surface | (F7) | | _ | Other (Explain in Rer | marks) |
| Thick Da | ark Surface (A12) | _ | Redox Depre | essions (F8 |) | | | | |
| Sandy M | lucky Mineral (S1) (L l | RR N, | Iron-Mangan | ese Masse | s (F12) (L | .RR N, | | | |
| | 147, 148) | | MLRA 13 | 6) | | | | | |
| Sandy G | leyed Matrix (S4) | _ | Umbric Surfa | ice (F13) (N | MLRA 13 | 6, 122) | | ³ Indicators of hydrophyt | ic vegetation and |
| | edox (S5) | - | Piedmont Flo | • | , , | • | | wetland hydrology mu | |
| Stripped | Matrix (S6) | - | Red Parent N | Aaterial (F2 | 21) (MLR/ | A 127, 147 |) | unless disturbed or pro | oblematic. |
| Restrictive L | ayer (if observed): | | | | | | | | |
| Туре: | | | - | | | | | | |
| Depth (inc | ches): | | - | | | | Hydric | Soil Present? Yes | No |
| Remarks: | | | | | | | • | | |
| | | | | | | | | | |

No soil pit due to rock at 0 inches



Seep data point prae140 facing east

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: I | Randolph | _ Sampling Date: 4/13/2016 |
|--|--------------------------------------|---------------------------------|----------------------------|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: prac106 |
| Investigator(s): Team C | Section, Towr | nship, Range: | |
| Landform (hillslope, terrace, etc.): Seep | Local relief (conc | ave, convex, none): <u>none</u> | Slope (%): <u>10</u> |
| Subregion (LRR or MLRA): | Lat: <u>38.5659387</u> | Long: <u>-80.1449107</u> | Datum: WGS1984 |
| Soil Map Unit Name: | | NWI classif | ication: UPL |
| Are climatic / hydrologic conditions on the site | e typical for this time of year? Yes | , No (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydro | logy significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydro | logy naturally problematic? | (If needed, explain any answ | 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>v</u> |
|---|-------------------|----------------|---------------------------------------|-----|----|----------|
| Remarks: | | | | | | |

HYDROLOGY

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|---|--|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| ✓ Surface Water (A1) | Sparsely Vegetated Concave Surface (B8) |
| ✓ High Water Table (A2) Hydrogen Sulfide Odor (C1 |) <u> </u> |
| ✓ Saturation (A3) Oxidized Rhizospheres on | Living Roots (C3) Moss Trim Lines (B16) |
| Water Marks (B1) Presence of Reduced Iron | (C4) Dry-Season Water Table (C2) |
| Sediment Deposits (B2) Recent Iron Reduction in T | Iled 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 <u>Depth</u> (inches): 0 | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 | Wetland Hydrology Present? Yes <u></u> No |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) | |
| Saturation Present? Yes <u>V</u> No Depth (inches): 0 | |
| 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 | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |
| Saturation Present? Yes Ves Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Remarks: | |

Sampling Point: prac106

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---|----------|----------------|---------------|---|
| Tree Stratum (Plot size: 30) | % Cover | Species? | <u>Status</u> | Number of Dominant Species |
| 1. Betula alleghaniensis | 20 | Yes | FAC | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | <u> </u> | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 2 (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B) |
| 6 | | | | |
| 7 | | - <u> </u> | | Prevalence Index worksheet: |
| | 20 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover:10 | | f total cover: | 4 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species x 2 =0 |
| 1. none | 0 | | | FAC species25 x 3 =75 |
| | | · · | | FACU species $0 	 x 4 = 0$ |
| 2 | | | | UPL species $0 \times 5 = 0$ |
| 3 | | | | Column Totals: 25 (A) 75 (B) |
| 4 | | | | |
| 5 | | . | | Prevalence Index = B/A =3 |
| 6 | | | | 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 $\leq 3.0^{1}$ |
| | 0 | = Total Cover | | |
| 50% of total cover:0 | | f total cover: | | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Viola sororia | 5 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2 | | <u> </u> | | |
| | | | | 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 | | <u> </u> | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10 | | <u> </u> | | m) tall. |
| 11 | | | | Herb – All herbaceous (non-woody) plants, regardless |
| | 5 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 2.5 | 20% o | f total cover: | 1 | We should be Allowed to the sector the second state |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in height. |
| 1. none | 0 | | | - Holght. |
| 2 | | - <u></u> · | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | - | | | Vegetation Present? Yes <u>V</u> No |
| | | = Total Cover | <u> </u> | |
| 50% of total cover:0 | | f total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | neet.) | | | |
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| Profile Des | cription: (Describe te | o the depth r | needed to docur | nent the i | ndicator | or confirm | the absence | e of indicato | ors.) | |
|----------------|---------------------------------|---------------|------------------|-------------|---------------------|------------------|----------------|---------------|-------------------|-----------------------------|
| Depth | Matrix | | Redo | x Features | 6 | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 10 YR 3/4 | 100 | | | | | S | | | |
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| | | | | | | | | | | |
| ¹ T | | | duesd Metrice Ma | | | | ² 1 | | n n M. Matrix | |
| Hydric Soil | oncentration, D=Deple | | | 5=IVIASKeu | Sand Gra | ains. | | | ng, M=Matrix | lydric Soils ³ : |
| • | | | | (07) | | | | | | - |
| Histoso | · · / | - | Dark Surface | · · · | | | | | A10) (MLRA | • |
| | pipedon (A2) | - | Polyvalue Be | | • • • | | 148) | | Redox (A16 |) |
| | istic (A3) | - | Thin Dark Su | | | 47, 148) | | (MLRA 14 | | (540) |
| | en Sulfide (A4) | - | Loamy Gleye | | F2) | | ' | | odplain Soils | s (F19) |
| | d Layers (A5) | - | Depleted Ma | · , | | | | (MLRA 13 | • • | |
| | uck (A10) (LRR N) | | Redox Dark | | , | | | | / Dark Surfac | |
| · | d Below Dark Surface | (A11) | Depleted Da | | · , | | 0 | Other (Expla | in in Remark | S) |
| | ark Surface (A12) | | Redox Depre | | | | | | | |
| | /lucky Mineral (S1) (L l | RR N, | Iron-Mangan | | es (F12) (I | LRR N, | | | | |
| | A 147, 148) | | MLRA 13 | • | | | 3. | | | |
| - | Gleyed Matrix (S4) | - | Umbric Surfa | | | | | | ydrophytic ve | • |
| | Redox (S5) | - | Piedmont Flo | • | , , | • | • | • | logy must be | • |
| | Matrix (S6) | - | Red Parent N | Material (F | 21) (MLR | A 127, 147 | ') ui | nless disturb | ed or probler | natic. |
| Restrictive | Layer (if observed): | | | | | | | | | |
| | avel and cobble | | _ | | | | | | | |
| Depth (in | ches): <u>4</u> | | _ | | | | Hydric Soi | I Present? | Yes | No |
| Remarks: | | | | | | | | | | |

No hydric soil indicators present



Seep data point prac106 facing southwest



Seep data point PRAE118 facing south



Seep data point PRAE117 facing south

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Ra | andolph | _ Sampling Date: 5/7/2016 |
|--|--------------------------|----------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: prae119 |
| Investigator(s): CG, KO | Section, Towns | hip, Range: | |
| Landform (hillslope, terrace, etc.): Road cut | Local relief (conca | ve, convex, none): <u>convex</u> | Slope (%): <u>60</u> |
| Subregion (LRR or MLRA): Lat: 3 | 8.536823 | Long: <u>-80.135941</u> | Datum: |
| Soil Map Unit Name: | | NWI classif | ication: UPL |
| Are climatic / hydrologic conditions on the site typical for t | 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.) |
| | | | |

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

HYDROLOGY

| Wetland Hydrology Indicato | rs: | | <u>S</u> | econdary Indicators (minimum of two required) | | | | |
|--|-------------------------|--------------------------------------|------------|---|--|--|--|--|
| Primary Indicators (minimum of | of one is required; che | 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 | | | | _ 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 | al Imagery (B7) | | _ | _ Shallow Aquitard (D3) | | | | |
| Water-Stained Leaves (B | 9) | | _ | _ Microtopographic Relief (D4) | | | | |
| Aquatic Fauna (B13) | | | <u>.</u> | FAC-Neutral Test (D5) | | | | |
| Field Observations: | | | | | | | | |
| Surface Water Present? | Yes 🖌 No | Depth (inches):1 | | | | | | |
| | | Depth (inches):0 | | | | | | |
| Water Table Present? | res <u> </u> | Deptil (inches) | | | | | | |
| Water Table Present? Saturation Present? (includes capillary fringe) | Yes <u>/</u> No | | Wetland Hy | drology Present? Yes 🖌 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 🖌 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: prae119

| | Absolute | - Dominant | Indicator | Dominance Test worksheet: |
|---|----------|---------------|------------|--|
| Tree Stratum (Plot size:30) | | Species? | | |
| | 0 | | | 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 | | | | |
| 5 | | | | Percent of Dominant Species |
| | | · | | That Are OBL, FACW, or FAC:(A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | | | |
| | 0 | = Total Cove | ər | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | ~ | OBL species $5 	 x 	ext{ 1} = 5$ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species7 x 2 =14 |
| | F | Vaa | | FAC species $5 \times 3 = 15$ |
| 1. Physocarpus opulifolius | 5 | Yes | FACW | |
| _{2.} Betula alleghaniensis | 5 | Yes | FAC | FACU species X 4 = |
| 3 | | | | UPL species 0 $x = 0$ Column Totals: 17 (A) 34 (P) |
| | | | | Column Totals: (A) (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 | | | | \checkmark 3 - Prevalence Index is $\leq 3.0^1$ |
| | 10 | = Total Cove | <u>ə</u> r | |
| 50% of total cover: 5 | | total cover: | 2 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | | | data in Remarks or on a separate sheet) |
| | - | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Carex stipata | 5 | Yes | OBL | |
| _{2.} Spiraea alba | 2 | Yes | FACW | |
| 3 | | | | 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 | 7 | · | ······ | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cove | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 3.5 | 20% of | total cover: | 1.4 | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | line grad |
| | | | | |
| 2 | | · | <u> </u> | |
| 3 | | . <u> </u> | | |
| 4 | | | | |
| 5. | | | | Hydrophytic |
| - S | - | | | Vegetation 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 | sheet.) | | | |
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| Depth Matrix | Redox | Features | | | | |
|---|--|---|-----------------------------------|---|---|--------------------------|
| (inches) Color (moist) | % Color (moist) | % Type ¹ | Loc ² | Texture | Remarks | |
| | | | | | | |
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| | | | | | | |
| Type: C=Concentration, D=Depletic | | Masked Sand Gra | ains | ² Location: PL=Por | e Lining, M=Matrix. | |
| Hydric Soil Indicators: | | | | | for Problematic Hyd | ric Soils ³ : |
| Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR | Loamy Gleyed Depleted Matri Redox Dark St 11) Depleted Dark Redox Depres | w Surface (S8) (M ace (S9) (MLRA 1 Matrix (F2) x (F3) urface (F6) Surface (F7) | 47, 148) | 148) Coast F (MLF Piedmo (MLF Very St | uck (A10) (MLRA 14 Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F RA 136, 147) nallow Dark Surface (Explain in Remarks) | -19) |
| MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) | MLRA 136) Umbric Surface Piedmont Floo |) | 6, 122) (MLRA 148 | 8) wetland | s of hydrophytic vege hydrology must be pr isturbed or problema | esent, |
| Restrictive Layer (if observed): | | | · · 2 /, · 4 /, | | | |
| Type: | | | | | | |
| Depth (inches): | | | | Hydric Soil Prese | ent? Yes | No 🔽 |
| Remarks: | | | | 1 | | |
| o soils. rock face | | | | | | |



Seep point prae119 facing south.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Randolph | Sampling Date: 5/10/2016 |
|---|--|--------------------------|
| Applicant/Owner: Dominion | State: | |
| Investigator(s): CG, KO | Section, Township, Range: | |
| Landform (hillslope, terrace, etc.): bench | Local relief (concave, convex, none): <u>non</u> | e Slope (%): <u>3</u> |
| Subregion (LRR or MLRA): Lat: 38.5360 | 043 Long: -80.135405 | Datum: |
| Soil Map Unit Name: | NV | VI classification: UPL |
| Are climatic / hydrologic conditions on the site typical for this tim | ne of year? Yes 🔽 No (If no, ex | plain in Remarks.) |
| Are Vegetation, Soil, or Hydrology signif | ficantly disturbed? Are "Normal Circums | stances" present? Yes No |
| Are Vegetation, Soil, or Hydrology natur | ally problematic? (If needed, explain a | iny 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> </u> | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---|--------------|----------------|---------------------------------------|-----|----|
| Remarks: | | | | | |
| Seep point along logging road. | | | | | |
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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) | | | |
| 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 | 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 No <u><</u> Depth (inches): | | | | |
| Water Table Present? Yes No 🖌 Depth (inches): | | | | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 | Wetland Hydrology Present? Yes <u>✓</u> No | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection | ons), if available: | | | |
| Remarks: Likely no water table present. Water infiltrates from the surface. | | | | |
| | | | | |
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Sampling Point: prae121

| | | 1 | | g · ••••• |
|---|----------|----------------|--------|---|
| | Absolute | | | Dominance Test worksheet: |
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Number of Dominant Species |
| 1 none | 0 | | | That Are OBL, FACW, or FAC:4 (A) |
| l. <u></u> | | · | | |
| 2 | | | | Total Number of Deminent |
| 2 | | | | Total Number of Dominant |
| 3 | | · | | Species Across All Strata: (B) |
| 4 | | | | |
| 5 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B) |
| 6 | | | | |
| | | | | Prevalence Index worksheet: |
| 7 | | · | | Total % Cover of: Multiply by: |
| | 0 | = Total Cover | r | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species x 1 = 15 |
| | 20 % 0 | total cover. | | 20 10 |
| Sapling/Shrub Stratum (Plot size:) | | | | FACTV species $x = $ |
| 1 Rosa multiflora | 5 | Yes | FACU | FAC species 10 x 3 = 30 |
| | | | | 25 140 |
| 2 | | | | FACU species $x 4 =$ |
| | | | | UPL species $0 	 x 5 = 0$ |
| 3 | | · | | 90 225 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = $B/A = 2.81$ |
| 6 | | | | |
| | | | | Hydrophytic Vegetation Indicators: |
| 7 | | . <u> </u> | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| 8 | | | | 2 - Dominance Test is >50% |
| 9 | | | | \checkmark 3 - Prevalence Index is ≤3.0 ¹ |
| | 5 | = Total Cover | | |
| 25 | | | 1 | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 2.5 | 20% of | f total cover: | 1 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| | 20 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1Tussilago farfara | 20 | Yes | FACU | |
| 2. Cardamine pensylvanica | 15 | Yes | OBL | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| _{3.} Carex laxiflora | 10 | Yes | FACU | be present, unless disturbed or problematic. |
| 4 Rumex crispus | 10 | Yes | FAC | |
| | | 100 | 17.0 | Definitions of Four Vegetation Strata: |
| 5. Impatiens capensis | 10 | Yes | FACW | • |
| | 10 | Yes | FACW | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6. Juncus effusus | 10 | Tes | FACW | more in diameter at breast height (DBH), regardless of |
| 7. | | | | 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 |
| | | | | 5 |
| 10 | | | | m) tall. |
| 11. | | | | |
| | 75 | | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 37.5 | 20% of | f total cover: | 15 | |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1 | 0 | | | |
| | - | | | |
| 2 | | · | | |
| 3 | | | | |
| | | · | | |
| 4 | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | | T C | | 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 s | neet.) | | | |
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| Profile Des | cription: (Describe t | o the dept | h needed to docur | nent the in | dicator of | or confirm | the absence of indicators.) |
|------------------|--|-------------------|---------------------------|-------------|--------------------|------------------|--|
| Depth | Matrix | | Redo | x Features | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-12 | 5YR 3/3 | 100 | | | | | SIC |
| | | | | | | | |
| | | <u> </u> | <u> </u> | | | | · · · · · · · · · · · · · · · · · · · |
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| | | | | | | | |
| 1 Type: C-C | Concentration, D=Depl | otion PM- | Paduaad Matrix M | E-Mookod | Sond Cr | ino | ² Location: PL=Pore Lining, M=Matrix. |
| | Indicators: | | Reduced Matrix, Ma | S=IVIASKeu | Sand Gra | ans. | Indicators for Problematic Hydric Soils ³ : |
| | | | | (07) | | | , |
| Histoso | . , | | Dark Surface | · , | - (CO) (N | | 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 Ma | . , | 2) | | (MLRA 136, 147) |
| | uck (A10) (LRR N) d Below Dark Surface | (11) | Redox Dark Depleted Da | | , | | Very Shallow Dark Surface (TF12) Other (Explain in Remarks) |
| | ark Surface (A12) | ; (ATT) | Redox Depre | | | | |
| | Mucky Mineral (S1) (L | | Iron-Mangan | | | | |
| | A 147, 148) | ixix i x , | MLRA 13 | | 3 (I IZ) (I | , | |
| | Gleyed Matrix (S4) | | Umbric Surfa | , | | 6 122) | ³ Indicators of hydrophytic vegetation and |
| - | Redox (S5) | | Piedmont Flo | · / · | | | |
| | d Matrix (S6) | | Red Parent N | • | . , | • | |
| | Layer (if observed): | | | | | A 127, 147 | |
| Type: ro | | | | | | | |
| | | | | | | | |
| Depth (ir | nches): <u>12</u> | | <u> </u> | | | | Hydric Soil Present? Yes No |
| Remarks: | | | | | | | |
| | | | | | | | |



Seep data point prae121 facing southeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Randolph Sampling Date: 5/10/2016 | |
|--|--|---|
| Applicant/Owner: Dominion | State: <u>WV</u> Sampling Point: prae122 | |
| Investigator(s): <u>CG, KO</u> | Section, Township, Range: | |
| Landform (hillslope, terrace, etc.): bench | _ Local relief (concave, convex, none): <u>convex</u> Slope (%): <u>10</u> | |
| Subregion (LRR or MLRA): Lat: 38.534964 | 4 Long: -80.135669 Datum: | |
| Soil Map Unit Name: | NWI classification: 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 signific | cantly disturbed? Are "Normal Circumstances" present? Yes No | / |
| Are Vegetation, Soil, or Hydrology natural | lly 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> </u> | No No No | Is the Sampled Area within a Wetland? | Yes | No |
|---|--------------|----------------|---------------------------------------|-----|----|
| Remarks: | | | | | |

HYDROLOGY

| | 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): | |
| | Wetland Hydrology Present? Yes <u>/</u> No |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): U | wetiand Hydrology Present? Tes No |
| | |
| (includes capillary fringe) | |

Sampling Point: prae122

| , | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---|----------|---------------|---------------|--|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | | |
| none | 0 | | <u>otatuo</u> | 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: 4 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | · | | That Are OBL, FACW, or FAC: 50 (A/B) |
| 6 | | | | Prevalence Index worksheet: |
| 7 | | · | | |
| | 0 | = Total Cover | | Total % Cover of: Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species x 1 =25 |
| 15 | 20/0 01 | | | FACW species $0 	 x 2 = 0$ |
| Sapling/Shrub Stratum (Plot size: 15) | 0 | | | FAC species 0 $x_3 = 0$ |
| 1. <u>none</u> | 0 | | | 15 60 |
| 2 | | | | FACU species X 4 = |
| 3 | | | | UPL species x 5 =0 |
| | | | | Column Totals: (A) (B) |
| 4 | | | | |
| 5 | | | | Prevalence Index = B/A =2.12 |
| 6 | | | | |
| 7 | | | | Hydrophytic Vegetation Indicators: |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | <u> </u> | 2 - Dominance Test is >50% |
| 9 | | · | | ✓ 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) |
| Carex crinita | 15 | Vaa | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| ••• | | Yes | OBL | |
| 2. Urtica dioica | 15 | Yes | FACU | |
| 3. Saxifraga chrysantha | 10 | Yes | | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Carex stipata | 10 | Yes | OBL | be present, unless disturbed or problematic. |
| | | | - | Definitions of Four Vegetation Strata: |
| 5 | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | 5 |
| | | | | 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 |
| | 40 | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 25 | | total cover: | | · · · · · · · · · · · · · · · · · · · |
| | 20/0 01 | | | Woody vine – All woody vines greater than 3.28 ft in |
| | 0 | | | height. |
| 1. <u>none</u> | 0 | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| 4 | | | | Hydrophytic |
| 5 | | · | | Vegetation |
| | 0 | = Total Cover | | Present? Yes Vo No |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | | | | |
| Remarks. (include photo numbers here of on a separate s | neet.) | | | |
| | | | | |
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| Profile Des | cription: (Describe t | o the dep | th needed to docur | ment the i | ndicator | or confirm | n the absence | of indicato | ors.) | | |
|-------------|--------------------------|------------|--------------------|--------------------|---------------------|------------------|----------------------------------|---------------|-----------------------|-------------|--|
| Depth | Matrix | | | x Features | | 0 | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | | |
| 0-4 | 5YR 3/3 | 100 | | | | | SIC | | | | |
| | | | | | | | | | | | |
| | · | | | | | · | | | | | |
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| | | | | | | | | | | | |
| 1 | | | | · | | | 2 | | | | |
| | Concentration, D=Depl | etion, RM= | Reduced Matrix, M | S=Masked | I Sand Gra | ains. | ² Location: PL | | | | |
| Hydric Soil | Indicators: | | | | | | | | oblematic Hy | | |
| Histosc | ol (A1) | | Dark Surface | | | | | | A10) (MLRA 1 4 | 47) | |
| Histic E | pipedon (A2) | | Polyvalue Be | elow Surfa | ce (S8) (N | ILRA 147, | 148) <u> </u> | oast Prairie | Redox (A16) | | |
| Black H | listic (A3) | | Thin Dark Su | urface (S9) | (MLRA 1 | 47, 148) | | (MLRA 14 | 7, 148) | | |
| Hydrog | en Sulfide (A4) | | Loamy Gleye | ed Matrix (| F2) | | Pi | iedmont Flo | odplain Soils (| (F19) | |
| Stratifie | ed Layers (A5) | | Depleted Ma | trix (F3) | | | | (MLRA 13 | 6, 147) | | |
| 2 cm M | uck (A10) (LRR N) | | Redox Dark | Surface (F | 6) | | Very Shallow Dark Surface (TF12) | | | | |
| Deplete | ed Below Dark Surface | (A11) | Depleted Da | rk Surface | (F7) | | 0 | ther (Explai | in in Remarks) | | |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F | 8) | | | | | | |
| Sandy | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | ese Mass | es (F12) (I | LRR N, | | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | | |
| Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) (| MLRA 13 | 6, 122) | ³ Indi | icators of hy | drophytic veg | etation and | |
| Sandy | Redox (S5) | | Piedmont Flor | odplain S | oils (F19) | (MLRA 14 | 18) we | tland hydro | logy must be p | oresent, | |
| Strippe | d Matrix (S6) | | Red Parent I | Material (F | 21) (MLR | A 127, 147 | 7) unl | ess disturb | ed or problema | atic. | |
| Restrictive | Layer (if observed): | | | | | | | | | | |
| Type: rc | | | | | | | | | | | |
| | nches): <u>4</u> | | | | | | Hydric Soil | Present? | Yes | No 🖌 | |
| | iciica). | | | | | | Tryune 301 | r resent (| 169 | | |
| Remarks: | | | | | | | | | | | |

Refusal at 4 inches.



Seep data point prae122 facing southwest



Seep data point PRAE129 facing southeast



Seep data point PRAE127 facing southeast



Seep data point PRAE128 facing southeast



Seep data point PRAE125 facing east



Seep point PRAE402 facing southeast



Seep data point PRAC138 facing south



Seep data point PRAC139 facing south



Seep data point PRAC137 facing northeast



Seep data point PRAC136 facing north



Seep data point PRAC125 facing south



Seep data point PRAC126 facing north



Seep point PRAE145 facing north



Seep point PRAE144 facing north



Seep data point PRAC127 facing southeast



Seep point PPOE013 facing south



Seep point PPOE014 facing southeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahontas | 3 | _ Sampling Date: 5/9/2016 |
|---|-------------------------------|---------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: ppoe111 |
| Investigator(s): CG, KO | Section, Township, Rang | ge: | |
| Landform (hillslope, terrace, etc.): slope | Local relief (concave, conve | ex, none): <u>concave</u> | Slope (%): <u>30</u> |
| Subregion (LRR or MLRA): Lat: 38.4 | 417674 Long | -80.0572119 | Datum: |
| 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 Hydrologysi | gnificantly disturbed? Are "N | ormal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology n | aturally problematic? (If nee | 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 | Is the Sampled Area within a Wetland? | Yes | No 🖌 |
|---|------------------------------|----------------|---------------------------------------|-----|------|
| Remarks: | | | | | |
| Heavy rainfall recently | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| HYDROL | .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 | 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): 0 Saturation Present? Yes No Depth (inches): 0 Depth (inches): 0 | Wetland Hydrology Present? Yes No |
| Water Table Present? Yes <u>Ves</u> No Depth (inches): 0 | , , , , |
| Water Table Present? Yes | , , , , |
| 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 | , , , , |
| 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 ✓ 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 ✓ 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 | , , , , |

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

Sampling Point: ppoe111

| Tane Stratum (Piot size: 30 Absolute Commission Deminance Test vorksheet: 1, Acer stacharum 5 Status Status The Are OB, FACW, or FAC: 2 (A) 2 | , , | | • • | | |
|--|---|--------|----------------|-------|---|
| 1. Acer sach drum 7 6 FACU Number of Dominant Species 2 (A) 2. 1. Acer sachdrum 6 7 (B) Percent of Dominant Species 7 (B) 4. 6 7 6 7 (B) Percent of Dominant Species 7 (B) 7. 5 = Total Cover 1 Percent of Dominant Species 7 (A) 7. 5 = Total Cover 1 Percent of Dominant Species 7 (A) 7. 5 = Total Cover 1 Percent of Dominant Species 7 1 0 7. 5 = Total Cover 1 Percent of Dominant Species 7 1 0 7. 7 6 7 1 0 Percent of Dominant Species 7 4 0 1 Total Acer percent of Dominant Species 7 4 0 10 Yes< | Tree Stratum (Plataize: 30) | | | | Dominance Test worksheet: |
| 1 | | | | | |
| 3. | 1. Acer saccharum | | Tes | 1700 | That Are OBL, FACW, or FAC: (A) |
| 3. | 2. | | | | |
| 3. | | | | | 7 |
| 5 | | | | | Species Across All Strata: (B) |
| 5. | 4 | | | | Dereent of Deminent Species |
| 6. | 5. | | | | |
| 7. | | | | | |
| Total Cover Total Cover 50% of total cover: 2.5 20% of total cover: 15 1 Paubus alleghaniensis 15 Yes 3. Accr pensylvanicum 10 Yes FACU 4. - - - 5. - - - - 6. - - - - 7. - - - - 8. - - - - 9. - - - - 10 Yes FACU Providence Index = B/A = 300 VL species 0 x 5 = 0 - - 2. - - - - - - - 9. - | | | · | | Prevalence Index worksheet: |
| 50% of total cover: 2.5 20% of total cover: 1 Saping/Shub_Stratum 15 Yes FACU FACU species 0 x 3 = 30 1. Rubus alleghaniensis 10 Yes FACU FACU Vectors 75 x 4 = 0 2. Betula alleghaniensis 10 Yes FACU Vectors 75 x 4 = 300 3. Acer pensylvanicum 10 Yes FACU Vectors 75 x 4 = 300 4. | 7 | | | | |
| 50% of total cover: 2.5 20% of total cover: 1 OBL species 0 0 A 1 = 0 FACW species $\frac{10}{10}$ x3 = $\frac{30}{30}$ FACU species $\frac{10}{10}$ x3 = $\frac{30}{30}$ Accr pensylvanicum 10 Yes FACU FACU species $\frac{10}{10}$ x3 = $\frac{30}{10}$ Accr pensylvanicum 10 Yes $\frac{15}{10}$ FACU species $\frac{10}{10}$ x3 = $\frac{30}{10}$ Accr pensylvanicum 10 Yes $\frac{15}{10}$ Accr pensylvanicum 10 Yes $\frac{1}{10}$ Prevalence index = $B/A = \frac{3.23}{40}$ Prevalence index = $B/A = \frac{3.23}{20}$ Hydrophytic Vegetation Indicators: $1 - Rapid Test for Hydrophytic Vegetation Solv of total cover: 17.5 Zol% of total cover: 7 A Samatra Midra Accr pensilvania Yes FACU Prevalence Index is 3.0^{1} $ | | 5 | = Total Cover | | |
| Sabina/Shrub Stratum (Plot size:15 | 50% of total cover: 2.5 | | | | |
| 1 Rubus allegheniensis 15 Yes FACU FACU species 10 X = 300 2 Retuite allegheniensis 10 Yes FACU FACU species 75 X 4 = 300 3. Accer pensylvanicum 10 Yes FACU Wescles 75 X 4 = 300 4. 10 Yes FACU Wescles 0 X 5 = 0 5. 0 Column Totals: 130 (A) (B) 7. 10 Yes FACU Wescles 0 X 5 = 0 6. 10 Yes FACU Workphytic Vegetation Indicators: 1.1 1.1 2.2 1.1 Rabit Tor Hydrophytic Vegetation 1.2 1.2 Dominance Test is >50% 9. 0 11. 30 Yes FACU Provalence Index is 4.3.0' - - Provalence Index is 4.3.0' - - - Yes FACU - - - - Provalence Index is 4.3.0' - - - - - - - - - - - - | 15 | 20700 | | | FACW species 45 x 2 = 90 |
| 1. Notice status 15 15 16 17 18 17 18 17 18 18 10 17 18 18 10 11 11 11 11 17 17 17 17 17 18 17 18 18 10 10 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 | Sapling/Shrub Stratum (Plot size:) | | | | 10 00 |
| 2 Detuina anegnaniensis 10 Yes FACU FACU UPL species 0 X = | 1. Rubus allegheniensis | 15 | Yes | FACU | FAC species X 3 = |
| 3. Acer pensylvanicum 10 Yes FACU UPL species 0 x 5 = 0 4. | 2 Betula alleghaniensis | 10 | Yes | FAC | FACU species $\frac{75}{2}$ x 4 = $\frac{300}{2}$ |
| 4 | | 10 | Yes | FACU | LIPL species $0 \times 5 = 0$ |
| 4 | 3 | 10 | | 17100 | 130 420 |
| 6. Introduction mask events 7. Interference 8. Interference 9. Interference 50% of total cover: 1.5 1. Interference 2. Indicators 1. Interference 3. 20% of total cover: 7 Hete Stratum (Plot size: 5 3. 1. 2. Indicators 1. Indicators 2. Yes FACU Problematic Hydrophytic Vegetation 1(Explain) 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2. Definitions of Four Vegetation Strata: 7. Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 8. 9. 9. Total cover: 50% of total cover: 90 9. Total Cover 50% of total cover: 0 1. Interference 20% of total cover: 0 1. 0 1. 0 | 4 | | | | Column Totals: (A) (B) |
| 6. Introduction mask events 7. Interference 8. Interference 9. Interference 50% of total cover: 1.5 1. Interference 2. Indicators 1. Interference 3. 20% of total cover: 7 Hete Stratum (Plot size: 5 3. 1. 2. Indicators 1. Indicators 2. Yes FACU Problematic Hydrophytic Vegetation 1(Explain) 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2. Definitions of Four Vegetation Strata: 7. Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 8. 9. 9. Total cover: 50% of total cover: 90 9. Total Cover 50% of total cover: 0 1. Interference 20% of total cover: 0 1. 0 1. 0 | | | | | 0.00 |
| 7. | | | · | | Prevalence Index = $B/A = 3.23$ |
| 7. | б | | · | | Hydrophytic Vegetation Indicators: |
| 8. | 7 | | | | |
| 9. 35 = Total Cover 3 - Prevalence Index is \$3.0° 9. 3 - Prevalence Index is \$3.0° 3 - Prevalence Index is \$3.0° 1. 1. 17.5 20% of total cover: 7 1. 1. 1. 25 Yes FACU 2. Urtica dioica 25 Yes FACU 3. Carex laxiflora 20 Yes FACU 4. Boehmeria cylindrica 15 No FACU 5. 10. FACU Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 6. Definitions of Four Vegetation Strata: 7. Definitions of Four Vegetation Strata: 7. Definitions of Four Vegetation Strata: 8. Sapling/Shrub – Woody plants, excluding vines, less 9. Sapling/Shrub – Woody plants, excluding vines, less 10. Sapling/Shrub – Woody plants, excluding vines, less 11. | | | | | |
| 35 = Total Cover 50% of total cover: 17.5 20% of total cover: 7 1 Impatiens capensis 30 Yes 2 Urtica dioica 25 Yes 3. Carex laxiflora 20 Yes 4. Boehmeria cylindrica 15 No 5. | | | · | | 2 - Dominance Test is >50% |
| 35 = Total Cover 50% of total cover: 17.5 20% of total cover: 7 1 Impatiens capensis 30 Yes 2 Urtica dioica 25 Yes 3. Carex laxiflora 20 Yes 4. Boehmeria cylindrica 15 No 5. | 9 | | | | |
| 50% of total cover: 17.5 20% of total cover: 7 Herb Stratum (Plot size: 5 30 Yes FACW 1. Impatiens capensis 30 Yes FACW 2. Urtica dioica 25 Yes FACU 3. Carex laxiflora 20 Yes FACU 4. Boehmeria cylindrica 15 No FACU 5. - - - 6. - - - 7. - - - 8. - - - 9. - - - 10. - - - 11. - - - 50% of total cover: 45 20% of total cover: 18 Woody Vine Stratum (Plot size: 30) 0 - 1. - - - - 1. - - - - 10. - - - - 11. - - - - 2. | | 35 | = Total Cover | | |
| Herb Stratum (Plot size:5) 30 Yes FACW 1. Impatiens capensis 30 Yes FACW 2. Urtica dioica 25 Yes FACU 3. Carex laxiflora 20 Yes FACU 4. Boehmeria cylindrica 15 No FACW 5 | 50% of total cover: 17.5 | | | | 4 - Morphological Adaptations' (Provide supporting |
| Impating (Plot size: | F | 2070.0 | | | data in Remarks or on a separate sheet) |
| 1. Induction of public of total cover: 0.0 113 114000 2. Urtica dioica 25 Yes FACU 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 4. Boehmeria cylindrica 15 No FACU Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 8. | | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 3. Carex laxiflora 20 Yes FACU Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 4. Boehmeria cylindrica 15 No FACW Definitions of Four Vegetation Strata: 5. | 1. Impatiens capensis | 30 | Yes | FACW | |
| 3. Carex laxiflora 20 Yes FACU Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 4. Boehmeria cylindrica 15 No FACW Definitions of Four Vegetation Strata: 5. | 2 Urtica dioica | 25 | Yes | FACU | |
| 3. Outex taking a 20 1 ess 1 kess 1 kess< | | 20 | Vee | | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Boehmeria cylindrica 15 No FACW 5. | | | · | | |
| 5. | _{4.} Boehmeria cylindrica | 15 | No | FACW | |
| 6. | 5 | | | | Deminions of Four vegetation Strata. |
| 0. | | | | | Tree – Woody plants excluding vines 3 in (7.6 cm) or |
| 7. | 6 | | | | |
| 8. | 7. | | | | |
| 9. | | | | | |
| 10. m) tall. 11. 90 = Total Cover 50% of total cover: 45 20% of total cover: 18 Woody Vine Stratum (Plot size: 30 1. 0 2. 0 3. 0 4. 0 5. 0 50% of total cover: 0 2. 0 3. 0 4. 0 5. 0 50% of total cover: 0 0 0 1. Present? Yes No | | | · | | Sapling/Shrub – Woody plants, excluding vines, less |
| $11. _ 50\% \text{ of total cover:} _ 45 _ 20\% \text{ of total cover:} _ 18 \\ \hline 90 = \text{Total Cover} \\ 20\% \text{ of total cover:} _ 18 \\ \hline 90 = \text{Total Cover} \\ 20\% \text{ of total cover:} _ 18 \\ \hline Woody \text{ Vine Stratum} (Plot size: _ 30 _) \\ 1. \underline{none} = 0 \\ 2. _ 3. _ 4. _ 5. _ 50\% \text{ of total cover:} _ 0 \\ \hline 50\% \text{ of total cover:} _ 0 \\ \hline 0 = \text{Total Cover} \\ \hline 0 \\ 20\% \text{ of total cover:} _ 0 \\ \hline 0 \\ \hline 0 \\ 20\% \text{ of total cover:} _ 0 \\ \hline 0 \\ \hline 0 \\ 20\% \text{ of total cover:} _ 0 \\ \hline 0 \\ \hline$ | 9 | | | | than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| $ \begin{array}{c} 90 \\ = \text{ Total Cover} \\ 50\% \text{ of total cover:} \underline{45} \\ 20\% \text{ of total cover:} \underline{18} \\ \hline Woody Vine Stratum} (Plot size: \underline{30}) \\ 1. \underline{none} \\ 2. \\ 3. \\ 4. \\ 5. \\ 5. \\ 50\% \text{ of total cover:} \underline{0} \\ \hline 0 \\ 2. \\ 2. \\ 50\% \text{ of total cover:} \underline{0} \\ \hline 0 \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2.$ | 10. | | | | m) tall. |
| $ \begin{array}{c} 90 \\ = \text{ Total Cover} \\ 50\% \text{ of total cover:} \underline{45} \\ 20\% \text{ of total cover:} \underline{18} \\ \hline Woody Vine Stratum} (Plot size: \underline{30}) \\ 1. \underline{none} \\ 2. \\ 3. \\ 4. \\ 5. \\ 5. \\ 50\% \text{ of total cover:} \underline{0} \\ \hline 0 \\ 2. \\ 2. \\ 50\% \text{ of total cover:} \underline{0} \\ \hline 0 \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2. \\ 2.$ | | | | | |
| | | | · | | |
| Woody Vine Stratum (Plot size: | | | | | of size, and woody plants less than 3.28 ft tall. |
| Woody Vine Stratum (Plot size: | 50% of total cover: 45 | 20% o | f total cover: | 18 | |
| I. none 0 I. neight. 2. 0 0 3. 0 0 4. 0 0 5. 0 0 50% of total cover: 0 0 | Woody Vine Stratum (Plot size: 30) | | | | |
| 2 | | ٥ | | | neight. |
| 3. | 1. <u></u> | 0 | | | |
| 3. | 2 | | | | |
| 4. | | | | | |
| 5 0 = Total Cover 50% of total cover: 0 20% of total cover: 0 Yes No | | | - <u></u> | | |
| 5 Vegetation $Present?$ Yes No | 4 | | · | | Hydrophytic |
| | 5. | | | | |
| 50% of total cover:0 20% of total cover:0 | | - | - Total Cava | | |
| | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | 50% of total cover: | 20% 0 | total cover: | | |
| | Remarks: (Include photo numbers here or on a separate s | heet.) | | | · |
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| Profile Des | cription: (Describe t | o the depth | 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 | |
| 0-16 | 5YR 3/3 | 100 | | | | | SIL | |
| | | | | | | | | |
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| | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Depl | etion, RM=R | educed Matrix, MS | S=Masked S | Sand Gra | iins. | ² Location: PL=Pore Lining, M=Matrix. | |
| Hydric Soil | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : | |
| Histoso | l (A1) | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) | |
| Histic E | pipedon (A2) | | Polyvalue Be | low Surface | e (S8) (M | LRA 147, | 148) Coast Prairie Redox (A16) | |
| Black H | istic (A3) | | Thin Dark Su | rface (S9) (| MLRA 1 | 47, 148) | (MLRA 147, 148) | |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (F | 2) | | 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 | e (A11) | Depleted Date | | | | Other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | | | | | |
| | Mucky Mineral (S1) (L | RR N, | Iron-Mangan | | s (F12) (L | .RR N, | | |
| | A 147, 148) | | MLRA 13 | , | | | 3 | |
| | Gleyed Matrix (S4) | | Umbric Surfa | | | | ³ Indicators of hydrophytic vegetation and | |
| | Redox (S5) | | Piedmont Flo | • | . , | • | | |
| | d Matrix (S6) | | Red Parent N | laterial (F2 | 1) (WILR/ | A 127, 147 | unless disturbed or problematic. | |
| | Layer (if observed): | | | | | | | |
| Type: <u>ro</u> | | | _ | | | | | |
| Depth (in | ches): <u>16</u> | | | | | | Hydric Soil Present? Yes No | - |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Seep data point ppoe111 facing south

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Poca | hontas | _ Sampling Date: 3/11/2016 |
|--|--------------------------|-------------------------------|----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: ppoe008 |
| Investigator(s): CG, AS | Section, Township | o, Range: | |
| Landform (hillslope, terrace, etc.): seep | Local relief (concave | convex, none): <u>concave</u> | Slope (%): <u>3</u> |
| Subregion (LRR or MLRA): Lat: 3 | 38.4187296 | Long: <u>-80.0481085</u> | Datum: |
| 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 | Is the Sampled Area within a Wetland? | Yes | No |
|---|-------------------------------------|----------------|---------------------------------------|-----|----|
| Remarks: | | | | | |
| Area is small. Less than 50 sq feet. | | | | | |
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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) High Water Table (A2) Hydrogen Sulfide Odor (C1) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) | |
| 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) Oxidized Rhizospheres on Living Oxidized Rhizospheres on Living Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Cher (Explain in Remarks) | ots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) | |
| Field Observations: Surface Water Present? Yes No | Wetland Hydrology Present? Yes No | |
| Remarks: Hydrology significantly altered due to cattle access. Water should not be present at surfa | <i>"</i> | |

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

Sampling Point: ppoe008

| | Absolute | Dominant Ir | dicator | Dominance Test worksheet: |
|---|----------|---------------|------------|--|
| Tree Stratum (Plot size: 30) | | Species? | | |
| 1. none | 0 | | Olalus | Number of Dominant Species |
| 1. <u>/////</u> | | | | That Are OBL, FACW, or FAC:1 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: (B) |
| 4 | | | | Dereent of Dominant Species |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:50 (A/B) |
| | | | | |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | | . <u> </u> | | |
| | 0 | = Total Cover | r | Total % Cover of:Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species5 x 1 =5 |
| 15 | 2070 01 | 10101 00 001. | | FACW species x 2 =0 |
| Sapling/Shrub Stratum (Plot size:) | | | | |
| 1. none | 0 | | | FAC species $x^3 = $ |
| 2 | | | | FACU species $5 	 x 4 = 20$ |
| | | | | UPL species 0 x 5 = 0 |
| 3 | | | | 10 25 |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A = 2.5 |
| 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 | |
| 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.} Melilotus officinalis | 5 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2 Symplocarpus foetidus | 5 | Yes | OBL | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | |
| | | | | Definitions of Four Vegetation Strata: |
| 5 | | · | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | . <u> </u> | | 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 |
| | 10 | = Total Cover | r | 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 |
| | 0 | | | height. |
| 1. none | 0 | | | |
| 2 | | | | |
| | | | | |
| 3 | | | | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | • | Tatal Cause | | Present? Yes <u>No</u> |
| | | = Total Cover | 0 | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
| Dominant grass unidentifiable due to season. Pasture gras | | in upland. Ve | ea disturb | ed due to grazing. |
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| Profile Desc | cription: (Describe te | o the depth | needed to docum | ent 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 |
| 0-10 | 10YR 4/2 | 95 7 | .5YR 3/4 | 5 | С | PL | SCL |
| | | | | | | | |
| | | <u> </u> | | | | <u> </u> | · · · · · · · _ · _ · _ · |
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| | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion, RM=R | educed Matrix, MS | =Masked | Sand Gra | ains. | ² Location: PL=Pore Lining, M=Matrix. |
| Hydric Soil | | | | | | | Indicators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 cm Muck (A10) (MLRA 147) |
| Histic E | pipedon (A2) | | Polyvalue Bel | ow Surfa | ce (S8) (N | ILRA 147, | |
| | istic (A3) | | Thin Dark Sur | | | | (MLRA 147, 148) |
| Hydroge | en Sulfide (A4) | | Loamy Gleye | d Matrix (| F2) | | Piedmont Floodplain Soils (F19) |
| Stratifie | d Layers (A5) | | ✓ Depleted Mat | rix (F3) | | | (MLRA 136, 147) |
| 2 cm Mu | uck (A10) (LRR N) | | Redox Dark S | Surface (F | 6) | | Very Shallow Dark Surface (TF12) |
| Deplete | d Below Dark Surface | (A11) | Depleted Darl | k Surface | (F7) | | Other (Explain in Remarks) |
| Thick D | ark Surface (A12) | | Redox Depres | ssions (F | 3) | | |
| Sandy M | /lucky Mineral (S1) (L | RR N, | Iron-Mangane | ese Masse | es (F12) (I | LRR N, | |
| MLR | A 147, 148) | | MLRA 136 | 5) | | | |
| Sandy C | Gleyed Matrix (S4) | | Umbric Surfac | ce (F13) (| MLRA 13 | 6, 122) | ³ Indicators of hydrophytic vegetation and |
| Sandy F | Redox (S5) | | Piedmont Floor | odplain S | oils (F19) | (MLRA 14 | wetland hydrology must be present, |
| | l Matrix (S6) | | Red Parent M | laterial (F | 21) (MLR | A 127, 147 | 7) unless disturbed or problematic. |
| Restrictive | Layer (if observed): | | | | | | |
| Type: C | JRRFF | | | | | | |
| | ches): <u>10</u> | | | | | | Hydric Soil Present? Yes 🖌 No |
| Remarks: | | | | | | | 1 |

Soil disturbed by cattle.



Seep data point ppoe008 facing west



Seep data point PPOE007 facing south



Seep point PPOY003 facing east



Seep point PPOE016 facing southeast



Seep point PPOY002 facing southeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pocal | hontas | _ Sampling Date: 3/9/2016 |
|--|--------------------------|-------------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: ppoe004 |
| Investigator(s): CG, AS | Section, Township | | |
| Landform (hillslope, terrace, etc.): drainage | Local relief (concave, | convex, none): <u>concave</u> | Slope (%): <u>30</u> |
| Subregion (LRR or MLRA): Lat: 38. | 3938537 | Long: <u>-80.0476107</u> | Datum: |
| Soil Map Unit Name: | | NWI classifi | cation: UPL |
| Are climatic / hydrologic conditions on the site typical for thi | s time of year? Yes N | lo (If no, explain in F | Remarks.) |
| Are Vegetation, Soil, or Hydrology | significantly disturbed? | Are "Normal Circumstances" | present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (| If needed, explain any answe | ers in Remarks.) |
| | | | |

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

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

HYDROLOGY

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) True Aquatic Plants (B14) | Sparsely Vegetated Concave Surface (B8) |
| ✓ 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): | |
| Surface Water Present? Yes No Depth (inches): Water Table Present? Yes V Depth (inches): | |
| | Wetland Hydrology Present? Yes <u></u> No |
| Water Table Present? Yes | · · · · |
| Water Table Present? Yes | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| Water Table Present? Yes | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |
| 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 inspect Ves ✓ Ves ✓ | · · · · |

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

Sampling Point: ppoe004

| | 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:0 (A) |
| | | | | |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata:1 (B) |
| 4 | | | | Demonst of Dominant Chaption |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B) |
| 6 | | | | |
| 7 | · | | | Prevalence Index worksheet: |
| / | 0 | . <u></u> | | Total % Cover of: Multiply by: |
| | | = Total Cove | - | $\begin{array}{c} \hline \hline \\ $ |
| 50% of total cover:0 | 20% of | total cover: | 0 | Γ |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species $x^2 = $ |
| 1. none | 0 | | | FAC species x 3 =0 |
| 2 | | | | FACU species $0 	 x 4 = 0$ |
| | | | | UPL species 0 x 5 = 0 |
| 3 | | | | F 10 |
| 4 | | . <u></u> | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = B/A =2 |
| 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 | 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. Carex sp. | 90 | Yes | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | 5 | | | |
| 2. Solidago gigantea | 5 | No | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 3 | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Demittoris of Pour 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> | | Conting/Charte Master and Interview loss |
| 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 | | . <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: 47. | 20% of | total cover: | 19 | 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> | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
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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 indicate | ors.) | |
|--|---|------------|-------------------|----------------------|----------------------------------|---------------------------------|---------------------------|--------------|---------------------|--------------|
| Depth | Matrix | | Redox Features | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-4 | 5YR 3/2 | 100 | | | | | SCL | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| ¹ Type: C=C | oncentration, D=Deple | etion RM= | Reduced Matrix M | S=Masked | Sand Gra | ains | ² Location: Pl | =Pore Lini | ng M=Matrix | |
| Hydric Soil | | | | | | | | | oblematic H | |
| Histoso | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (/ | A10) (MLRA 1 | 47) |
| | pipedon (A2) | | Polyvalue Be | | ce (S8) (N | ILRA 147. | | | Redox (A16) | |
| | istic (A3) | | Thin Dark Su | | · / · | | ·, <u> </u> | (MLRA 14 | | |
| Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) | | | | | | Piedmont Floodplain Soils (F19) | | | | |
| | Stratified Layers (A5) Depleted Matrix (F3) | | | | | (MLRA 136, 147) | | | | |
| 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) | | | | | Very Shallow Dark Surface (TF12) | | | | | |
| Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) | | | | | 0 | ther (Expla | in in Remarks | a) | | |
| Thick Dark Surface (A12) Redox Depressions (F8) | | | | | | | | | | |
| Sandy M | /lucky Mineral (S1) (L l | RR N, | Iron-Mangan | ese Masse | es (F12) (| LRR N, | | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | | |
| Sandy 0 | Gleyed Matrix (S4) | | Umbric Surfa | ice (F13) (I | MLRA 13 | 6, 122) | ³ Ind | icators of h | drophytic ve | getation and |
| Sandy F | Redox (S5) | | Piedmont Flo | odplain So | oils (F19) | (MLRA 14 | 8) we | tland hydro | logy must be | present, |
| Stripped | d Matrix (S6) | | Red Parent M | Aaterial (F2 | 21) (MLR | A 127, 147 | ') unl | ess disturb | ed or problem | atic. |
| | Layer (if observed): | | | | | | | | | |
| Type: ro | ck | | | | | | | | | |
| Depth (in | | | | | | | Hydric Soil | Present? | Yes | No 🖌 |
| Remarks: | | | | | | | 1 | | | |

slope, water flows across surface



Spring data point ppoe004 facing east



Seep data point PPOE003 facing southwest



Seep data point PPOE002 facing west



Seep data point PPOC111 facing west



Seep data point PPOC110 facing northeast



Seep data point PPOC109 facing north



Seep data point PPOC108 facing northwest



Seep data point PPOA418 facing north



Seep data point PPOE001 facing northwest



Seep data point PPOA422 facing west



Seep data point PPOA423 facing south



Seep data point PPOA421 facing southwest



Spring data point PPOA420 facing west



Seep data point PPOA432 facing east



Seep data point PPOA433 facing east



Seep data point PPOA434 facing north



Seep data point PPOA435 facing north



Seep data point PPOA436 facing north



Seep data point PPOA437 facing northeast



Seep data point PPOA426 facing northwest



Seep data point PPOA427 facing north



Seep data point PPOA431 facing east

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pocah | ontas | _ Sampling Date: 6/7/2016 |
|---|--------------------------------|----------------------------|---------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: ppoa430 |
| Investigator(s): GB, KO | Section, Township, | Range: | |
| Landform (hillslope, terrace, etc.): road cut | Local relief (concave, o | convex, none): <u>none</u> | Slope (%): <u>45</u> |
| Subregion (LRR or MLRA): Lat: 38 | .369587 | Long: <u>-80.087927</u> | Datum: WGS1984 |
| Soil Map Unit Name: | | NWI classi | fication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for th | is time of year? Yes <u></u> N | o (If no, explain in | Remarks.) |
| Are Vegetation, Soil 🖌 , or Hydrology 🖌 | significantly disturbed? A | re "Normal Circumstances' | ' present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology | naturally problematic? (I | f needed, explain any answ | vers in Remarks.) |
| SUMMARY OF EINDINGS Attach site man | chowing compling poin | t loootiona transat | 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: | | | | | | |

Data point taken at the base of road cut; saturated area with hydrology from road cut seep; minor outflow follows ditch and passes under existing road via culvert; outflow becomes subterranean approximately ten feet downslope of culvert outlet; meets hydrology but does not meet any hydic soil indicators; redoximorhic features not present - likely because of gradient and well oxgenated water. Area of saturation is approximately a hundred square feet.

HYDROLOGY

| Wetland Hydrology Indicator | s: | | <u>S</u> | econdary Indicators (minimum of two required) |
|---|-------------------------|---|-------------|---|
| Primary Indicators (minimum of | f one is required; chec | k all that apply) | | _ Surface Soil Cracks (B6) |
| Surface Water (A1) | | True Aquatic Plants (B14) | _ | _ Sparsely Vegetated Concave Surface (B8) |
| High Water Table (A2) | _ | Hydrogen Sulfide Odor (C1) | _ | _ Drainage Patterns (B10) |
| 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) | | | U | FAC-Neutral Test (D5) |
| Field Observations: | | | | |
| Surface Water Present? | Yes No 🔽 | Depth (inches): | | |
| | | | | |
| Water Table Present? | Yes No 🔽 | Depth (inches): | | |
| Saturation Present? | Yes No Yes No | _ Depth (inches): | Wetland Hyd | drology Present? Yes 🖌 No |
| Saturation Present? (includes capillary fringe) | Yes 🖌 No | _ Depth (inches): | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |
| Saturation Present? (includes capillary fringe) Describe Recorded Data (strea | Yes 🖌 No | _ Depth (inches): _ Depth (inches):0 | - | |

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

Sampling Point: ppoa430

| | Absolute | Dominant Ir | 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: 8 (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: <u>62.5</u> (A/B) |
| 6 | | · | | Dravalan oo la day waxbab aat |
| 7 | | | | Prevalence Index worksheet: |
| | 0 | = Total Cover | | Total % Cover of:Multiply by: |
| 50% of total cover:0 | | total cover: | 0 | OBL species X 1 = 15 |
| 15 | 20 /0 01 | | | FACW species 30 x 2 = 60 |
| Sapling/Shrub Stratum (Plot size:) | _ | | | 20 60 |
| 1. Sambucus racemosa | 5 | Yes | FACU | FAC species X 3 = |
| 2 | | | | FACU species25 x 4 =100 |
| | | · | | UPL species $0 	 x 5 = 0$ |
| 3 | | · | <u> </u> | 00 025 |
| 4 | | | | Column Totals: (A) (B) |
| 5 | | | | Prevalence Index = B/A =2.61 |
| 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 $\leq 3.0^1$ |
| | 5 | = Total Cover | | |
| 50% of total cover: 2.5 | | total cover: | 1 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 2070 01 | | | data in Remarks or on a separate sheet) |
| | 45 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. <i>Impatiens capensis</i> | 15 | Yes | FACW | · · · · · · · · · · · · · · · · |
| 2. Poa sylvestris | 15 | Yes | FACW | 1 |
| _{3.} Ranunculus acris | 10 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Laportea canadensis | 10 | Yes | FAC | be present, unless disturbed or problematic. |
| | 10 | | | Definitions of Four Vegetation Strata: |
| 5Barbarea vulgaris | 10 | Yes | FACU | |
| _{6.} Glyceria striata | 10 | Yes | OBL | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 7 Rumex obtusifolius | 10 | Yes | FACU | more in diameter at breast height (DBH), regardless of height. |
| 8. Veronica americana | 5 | No | OBL | neight. |
| 8. Veronica americana | | | ODL | 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 |
| 10.5 | | = Total Cover | | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: <u>42.5</u> | 20% of | total cover: | 1/ | Woody vine – All woody vines greater than 3.28 ft in |
| Woody Vine Stratum (Plot size: 30) | | | | height. |
| 1. none | 0 | | | |
| | | · | <u> </u> | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| | | · · <u>· · · · · · · · · ·</u> · | | Hydrophytic |
| 5 | | · | | Vegetation Present? Yes V No |
| | | = Total Cover | | |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate sl | heet.) | | | l |
| ······································ | , | | | |
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| Profile Desc | ription: (Describe to | o the depth i | needed to docun | nent the ir | ndicator o | or confirm | the absence | of indicato | rs.) | |
|-------------------|--------------------------|---------------|------------------|--------------|-------------------|------------------|--------------------------|----------------|------------------------------------|--------------------------|
| Depth | Matrix | | | x Features | | | | | | |
| (inches) | Color (moist) | <u>%</u> | Color (moist) | <u>%</u> | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-6 | 5YR 3/2 | 100 | | | | | SICL | | | |
| 6-15 | 5YR 3/3 | 100 | | | | | SIC | rock at 15" | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| 1 Type: C=C(| oncentration, D=Deple | tion RM-Re | educed Matrix MS | S-Masked | Sand Gra | ains | ² Location: P | Pl –Pore Linin | ng, M=Matrix. | |
| Hydric Soil | | | | | | | | | oblematic Hydi | ric Soils ³ : |
| Histosol | (A1) | | Dark Surface | (S7) | | | 2 | cm Muck (A | .10) (MLRA 147 | 7) |
| | bipedon (A2) | | Polyvalue Be | · · / | e (S8) (M | LRA 147, | | | Redox (A16) | , |
| Black Hi | stic (A3) | | Thin Dark Su | | | | - | (MLRA 147 | . , | |
| Hydroge | en Sulfide (A4) | - | Loamy Gleye | d Matrix (F | -2) | | F | Piedmont Floo | odplain Soils (F | 19) |
| Stratified | d Layers (A5) | | Depleted Mat | trix (F3) | | | | (MLRA 136 | 6, 147) | |
| 2 cm Mu | ıck (A10) (LRR N) | | Redox Dark S | Surface (F6 | 6) | | \ | /ery Shallow | Dark Surface (| ΓF12) |
| · | d Below Dark Surface | (A11) | Depleted Dar | | . , | | C | Other (Explain | n in Remarks) | |
| | ark Surface (A12) | | Redox Depre | | | | | | | |
| | lucky Mineral (S1) (LI | RR N, | Iron-Mangan | | s (F12) (l | _RR N, | | | | |
| | A 147, 148) | | MLRA 13 | | | | 3. | | | |
| | Bleyed Matrix (S4) | | Umbric Surfa | | | | | • | drophytic veget | |
| | edox (S5) Matrix (S6) | | Piedmont Flo | • | . , | • | | • | ogy must be pre d or problemati | |
| | Layer (if observed): | | | naterial (F2 | | 4 127, 147 |) un | | u or problemati | С. |
| Type: silt | ty clay | | | | | | | | | |
| Depth (inc | | | _ | | | | Hydric Soi | Procont? | Yes | No 🖌 |
| | | | _ | | | | Hyunc Sol | FIESEIIL? | 162 | |
| Remarks: | | | | | | | | | | |



Seep data point PPOA430 facing north

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pc | ocahontas | _ Sampling Date: <u>3/17/2016</u> | |
|--|--------------------------|--------------------------------|-----------------------------------|--|
| Applicant/Owner: DOMINION | | State: WV | Sampling Point: ppoc101 | |
| Investigator(s): Team C | Section, Towns | hip, Range: | | |
| Landform (hillslope, terrace, etc.): Seep | Local relief (concav | ve, convex, none): <u>none</u> | Slope (%): <u>5</u> | |
| Subregion (LRR or MLRA): Lat: | 38.3692045 | Long: <u>-80.0670261</u> | Datum: | |
| 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 | Is the Sampled Area within a Wetland? | Yes | No |
|---|----------------------|-----------------------|---------------------------------------|-----|----|
| Remarks: Seep which supplies water to a stream lo | cated outside o | of the study 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) 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) 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 <u>V</u> Depth (inches): | |
| Water Table Present? Yes <u>V</u> No Depth (inches): <u>0</u> | |
| Saturation Present? Yes <u>Yes</u> No <u>Depth</u> (inches): <u>U</u> (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: Hydrology indicators present | |

HYDROLOGY

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

Sampling Point: ppoc101

| | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|---|----------|--------------|-----------|---|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | Status | Number of Dominant Species |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: 1 (A) |
| 2 | | | | |
| 3 | | | | Total Number of Dominant Species Across All Strata: 2 (B) |
| | | · | | Species Across Air Strata. (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | <u> </u> | That Are OBL, FACW, or FAC: 50 (A/B) |
| 6 | | | | |
| 7. | | | | Prevalence Index worksheet: |
| | 0 | = Total Cove | er | Total % Cover of: Multiply by: |
| 50% of total cover: 0 | | total cover: | 0 | OBL species x 1 =0 |
| Sapling/Shrub Stratum (Plot size: 15) | | | | FACW species 20 x 2 = 40 |
| Debinis recudes essis | 40 | Yes | FACU | FAC species $0 	 x 3 = 0$ |
| - '' <u></u> _ | | | TACO | 40 160 |
| 2 | | | | FACU species 40 x 4 = 100 |
| 3 | | | | UPL species x 5 = |
| 4 | | | | Column Totals: (A) (B) |
| | | | | |
| 5 | | | | Prevalence Index = B/A =3.33 |
| 6 | | <u> </u> | <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | 2 - Dominance Test is >50% |
| 9. | | | | |
| | 40 | = Total Cove | | 3 - Prevalence Index is ≤3.0 ¹ |
| 50% of total cover: 20 | | total cover: | 8 | 4 - Morphological Adaptations ¹ (Provide supporting |
| | 20% 01 | total cover. | | data in Remarks or on a separate sheet) |
| | 00 | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. Osmundastrum cinnamomeum | 20 | Yes | FACW | |
| 2 | | | | 1 |
| 3 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | be present, unless disturbed or problematic. |
| 4 | | | | Definitions of Four Vegetation Strata: |
| 5 | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | · | more in diameter at breast height (DBH), regardless of |
| 7 | | | | height. |
| 8 | | | | |
| 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 |
| | 20 | = Total Cove | er | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:10 | 20% of | total cover: | 4 | 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 none | 0 | | | noight. |
| | | | | |
| 2 | | | · | |
| 3 | | | · | |
| 4 | | | | Hydrophytic |
| 5 | | | | Vegetation |
| | - | = Total Cove | 9r | Present? Yes 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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| | | | h needed to docu | | | | | |
|------------------|-------------------------------|-----------------|-------------------|------------------------------|------------------|------------------------------|---------------------|---------------|
| Depth | Matrix | | | x Features | . 2 | - / | | |
| (inches) 0-12 | Color (moist) 7.5 YR 3/3 | <u>%</u> 100 | Color (moist) | <u>%</u> Type ¹ | Loc ² | <u>Texture</u> SL | Remark | (S |
| 0-12 | 7.5 TR 3/3 | 100 | | | | | | |
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| 1- 0.0 | | | | | - <u> </u> | 2 | | |
| | Concentration, D=Deple | etion, RM= | Reduced Matrix, M | S=Masked Sand G | ains. | ² Location: PL=Pc | | |
| • | Indicators: | | | | | | for Problematic | - |
| Histoso | () | | Dark Surface | | | | Muck (A10) (MLR | • |
| | pipedon (A2) | | · | elow Surface (S8) (I | | · | Prairie Redox (A1 | 6) |
| | listic (A3) | | | urface (S9) (MLRA | 147, 148) | • | .RA 147, 148) | |
| | en Sulfide (A4) | | - · · | ed Matrix (F2) | | | ont Floodplain So | ils (F19) |
| Stratifie | ed Layers (A5) | | Depleted Ma | ıtrix (F3) | | (ML | .RA 136, 147) | |
| | uck (A10) (LRR N) | | Redox Dark | · · · | | Very S | Shallow Dark Surfa | ace (TF12) |
| Deplete | ed Below Dark Surface | (A11) | Depleted Da | rk Surface (F7) | | Other | (Explain in Remai | ·ks) |
| Thick D | ark Surface (A12) | | Redox Depre | essions (F8) | | | | |
| Sandy I | Mucky Mineral (S1) (Ll | RR N, | Iron-Mangan | ese Masses (F12) | (LRR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | |
| Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) (MLRA 1 | 36, 122) | ³ Indicato | rs of hydrophytic | egetation and |
| Sandy I | Redox (S5) | | Piedmont Flo | odplain Soils (F19 | (MLRA 14 | 8) wetland | hydrology must b | e present, |
| Strippe | d Matrix (S6) | | Red Parent I | Material (F21) (MLF | RA 127, 147 |) unless | disturbed or proble | ematic. |
| | Layer (if observed): | | _ | · · · · | . , | - | • | |
| Type: | , | | | | | | | |
| | nches): | | | | | Hydric Soil Pres | sent? Yes | No 🖌 |
| | | | | | | | | |
| Remarks: | | | | | | | | |

No hydric soil present



Seep data point PPOC101 facing northwest



Seep data point PPOC107 facing west



Seep data point PPOC105 facing north



Seep data point PPOC106 facing north



Seep data point PPOC102 facing west

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: | Pocahontas | Sampling Date: <u>3/24/2016</u> |
|--|---------------------|-----------------------------------|---------------------------------|
| Applicant/Owner: DOMINION | | State: V | |
| Investigator(s): Team C | Section, Tov | vnship, Range: | |
| Landform (hillslope, terrace, etc.): Seep | _ Local relief (con | cave, convex, none): <u>conca</u> | ve Slope (%):2 |
| Subregion (LRR or MLRA): Lat: 38.34674 | 13 | Long: <u>-80.0343963</u> | Datum: |
| Soil Map Unit Name: | | NWI | classification: UPL |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes | No (If no, expl | ain in Remarks.) |
| Are Vegetation, Soil, or Hydrologysignific | antly disturbed? | Are "Normal Circumsta | nces" present? Yes 🔽 No |
| Are Vegetation, Soil, or Hydrology natural | ly problematic? | (If needed, explain any | answers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map show | ving sampling | point locations, tran | sects, 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: | | | • | | |
| No vegetation within seep. Seep becom | es channelized | a dissipates but doe | es not appear to for a stream. | | |
| | | | | | |
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HYDROLOGY

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one is required; check all that apply) | Surface Soil Cracks (B6) |
| Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Ro 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) | Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) 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) Vo Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection) | Vetland Hydrology Present? Yes <u>V</u> No ns), if available: |
| Remarks: Hydrology indicators present | |
| | |
| | |
| | |
| | |

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

Sampling Point: ppoc120

| | Absolute | Dominant In | dicator | Dominance Test worksheet: | | |
|---|----------|----------------|----------|--|-------------------|----------|
| Tree Stratum (Plot size: 30) | % Cover | Species? | | Number of Dominant Species | | |
| 1. none | 0 | | | That Are OBL, FACW, or FAC: | 0 | (A) |
| 2 | | | | Total Number of Dominant | | |
| 3 | | | | Species Across All Strata: | 0 | (B) |
| 4 | | | | | | () |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A/B) |
| 6 | | | | That Ale OBL, FACW, OF FAC. | | (A/B) |
| 7. | | | | Prevalence Index worksheet: | | |
| /· | 0 | = Total Cover | | Total % Cover of: | Multiply by: | |
| 50% of total cover:0 | | | - | OBL species x | 1 = | _ |
| Sapling/Shrub Stratum (Plot size: 15) | 20/00 | | | FACW species x | | |
| 2020 | 0 | | | FAC species x | | |
| | | | <u> </u> | FACU species x | | |
| 2 | | | | UPL species x | | |
| 3 | | | | Column Totals: (A | | |
| 4 | | | | | .) | _ (D) |
| 5 | | | | Prevalence Index = B/A = | | |
| 6 | | | | Hydrophytic Vegetation Indica | | |
| 7 | | | | 1 - Rapid Test for Hydrophy | | |
| 8 | | <u> </u> | | 2 - Dominance Test is >50% | - | |
| 9 | | | | 2 - Dominance Pest is >50 // | | |
| | 0 | = Total Cover | | | | |
| 50% of total cover:0 | 20% o | f total cover: | 0 | 4 - Morphological Adaptation | | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a | • • | |
| 1. none | 0 | | | Problematic Hydrophytic Ve | getation' (Expla | in) |
| | | · · | | | | |
| 2 | | | | ¹ Indicators of hydric soil and wet | | nust |
| 3 | | | | be present, unless disturbed or p | | |
| 4 | | | | Definitions of Four Vegetation | Strata: | |
| 5 | | | | Tree – Woody plants, excluding | vines, 3 in. (7.6 | cm) or |
| 6 | | | | more in diameter at breast heigh | | |
| 7 | | | | height. | | |
| 8 | | | | Sapling/Shrub – Woody plants, | excluding vines | less |
| 9 | | | | than 3 in. DBH and greater than | or equal to 3.28 | 3 ft (1 |
| 10 | | | | m) tall. | | |
| 11 | | | | Herb – All herbaceous (non-woo | dv) plants rega | rdless |
| | 0 | = Total Cover | | of size, and woody plants less th | | alooo |
| 50% of total cover:0 | 20% o | f total cover: | 0 | | | . (i) . |
| Woody Vine Stratum (Plot size: 30) | | | | Woody vine – All woody vines g height. | reater than 3.28 | s ft in |
| 1. none | 0 | | | hoight | | |
| 2. | | | | | | |
| 3. | | · · | | | | |
| | | | | | | |
| 4 | | | | Hydrophytic | | |
| 5 | | | | Vegetation Present? Yes | No 🖌 | |
| 50% of total cover: 0 | | = Total Cover | ∧ | 1105cm | | |
| | | f total cover: | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | | | |
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| Profile Desc | cription: (Describe to | o the depth n | eeded to docur | nent the ir | ndicator o | or confirm | the absence of indica | tors.) | |
|--------------|--------------------------|---------------|------------------|---------------------|--------------------|-----------------------|-----------------------------------|---------------------------------------|---|
| Depth | Matrix | | Redo | x Features | 5 | | | | |
| (inches) | Color (moist) | | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-18 | 10 YR 5/3 | 100 | | | | | LS | | |
| | | | | | | | | | |
| | | <u> </u> | | | | | <u> </u> | | |
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| | · | | | | | | | | |
| | oncentration, D=Deple | etion, RM=Red | duced Matrix, MS | S=Masked | Sand Gra | lins. | ² Location: PL=Pore Li | | |
| Hydric Soil | Indicators: | | | | | | Indicators for | Problematic Hydric Soils ³ | : |
| Histosol | (A1) | _ | Dark Surface | e (S7) | | | 2 cm Muck | (A10) (MLRA 147) | |
| Histic Ep | pipedon (A2) | _ | Polyvalue Be | low Surfac | e (S8) (M | LRA 147, [•] | 148) Coast Prair | ie Redox (A16) | |
| Black Hi | istic (A3) | _ | Thin Dark Su | urface (S9) | (MLRA 1 | 47, 148) | (MLRA 1 | 47, 148) | |
| Hydroge | en Sulfide (A4) | _ | Loamy Gleye | ed Matrix (F | -2) | | Piedmont F | loodplain Soils (F19) | |
| Stratified | d Layers (A5) | _ | Depleted Ma | trix (F3) | | | (MLRA 1 | 36, 147) | |
| 2 cm Mu | uck (A10) (LRR N) | _ | Redox Dark | Surface (F | 6) | | Very Shallo | w Dark Surface (TF12) | |
| Deplete | d Below Dark Surface | (A11) | _ Depleted Da | rk Surface | (F7) | | Other (Exp | ain in Remarks) | |
| Thick Da | ark Surface (A12) | _ | _ Redox Depre | | | | | | |
| Sandy N | /lucky Mineral (S1) (Ll | RR N, | Iron-Mangan | ese Masse | es (F12) (l | .RR N, | | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | | |
| Sandy G | Eleyed Matrix (S4) | _ | Umbric Surfa | ace (F13) (I | MLRA 13 | 6, 1 22) | ³ Indicators of | hydrophytic vegetation and | |
| Sandy F | Redox (S5) | _ | Piedmont Flo | odplain Sc | oils (F19) | (MLRA 148 | wetland hyd | ology must be present, | |
| Stripped | I Matrix (S6) | | Red Parent M | Material (F2 | 21) (MLR/ | A 127, 147) |) unless distu | bed or problematic. | |
| Restrictive | Layer (if observed): | | | | | | | | |
| Type: | | | | | | | | | |
| Depth (in | ches): | | | | | | Hydric Soil Present? | Yes No 🖌 | |
| Remarks: | | | | | | | - | | _ |
| | indicatorspresent | | | | | | | | |

to hydric soil indicatorspresent



Seep data point facing west



Seep data point PPOC122 facing east

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahont | as | _ Sampling Date: 5/23/2016 |
|---|----------------------------|----------------------------|-----------------------------|
| Applicant/Owner: Dominion | | State: WV | Sampling Point: ppoa415 |
| Investigator(s): GB, KO | Section, Township, Ra | nge: | |
| Landform (hillslope, terrace, etc.): ditch | Local relief (concave, con | vex, none): <u>concave</u> | Slope (%): <u>5</u> |
| Subregion (LRR or MLRA): Lat: 38.338 | 0033 Lor | g: <u>-79.9772064</u> | Datum: WGS1984 |
| Soil Map Unit Name: | | NWI classif | fication: UPLAND |
| Are climatic / hydrologic conditions on the site typical for this tin | ne of year? Yes 🔽 No _ | (If no, explain in | Remarks.) |
| Are Vegetation, Soil, or Hydrologysign | ficantly disturbed? Are | 'Normal Circumstances" | ' present? Yes 🖌 No |
| Are Vegetation, Soil, or Hydrology natu | rally problematic? (If ne | eded, explain any answ | vers in Remarks.) |
| SUMMARY OF FINDINGS – Attach site map she | owing sampling point I | ocations, 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: Intermittent seep located at cut for ditch along County Road 1 CR; outflow follows ditch for distance before passing under road via culvert; outflow | | | | | |
| enters previously delineated wetland w | | · | | | |

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 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 <u>Depth</u> (inches): 1 | |
| Water Table Present? Yes No <u></u> | |
| | Hydrology Present? Yes 🖌 No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | ailable: |
| | |
| Remarks: | |
| | |
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VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: ppoa415

| , | Absolute | Dominant II | dicator | Dominance Test worksheet: |
|---|----------|---------------------------------------|----------|---|
| Tree Stratum (Plot size: <u>30</u>) | | Species? | Status | |
| 1 Quercus alba | 25 | Yes | FACU | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) |
| 2. Carya glabra | 15 | Yes | FACU | |
| | 10 | Yes | FACU | Total Number of Dominant |
| 3. <u>Acer saccharum</u> | 10 | 165 | TACU | Species Across All Strata: 10 (B) |
| 4 | | · | | Demont of Demission (Demoise |
| 5 | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: ¹⁰ (A/B) |
| | | | | |
| 6 | | · | | Prevalence Index worksheet: |
| 7 | 50 | · | | Total % Cover of:Multiply by: |
| | | = Total Cove | | 0 |
| 50% of total cover: 25 | 20% of | total cover: | 10 | |
| Sapling/Shrub Stratum (Plot size:15) | | | | FACW species $x 2 = $ |
| _{1.} Cornus florida | 10 | Yes | FACU | FAC species <u>5</u> x 3 = <u>15</u> |
| 2. Rosa multiflora | 5 | Yes | FACU | FACU species 125 x 4 = 500 |
| 3. Prunus serotina | 5 | Yes | FACU | UPL species 0 x 5 = 0 |
| | 5 | · | 17100 | 130 515 |
| 4. Elaeagnus umbellata | | Yes | | Column Totals: (A) (B) |
| 5. Acer rubrum | 5 | Yes | FAC | Prevalence Index = $B/A = 3.96$ |
| 6 | | | | |
| | | · | | Hydrophytic Vegetation Indicators: |
| 7 | | | <u> </u> | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | · | | 2 - Dominance Test is >50% |
| 9 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | 30 | = Total Cove | | |
| 50% of total cover:15 | 20% of | total cover: | 6 | 4 - Morphological Adaptations ¹ (Provide supporting |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Schedonorus arundinaceus | 25 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| 2. Dactylis glomerata | 15 | Yes | FACU | ¹ Indicators of hydric soil and wetland hydrology must |
| 3. Potentilla simplex | 10 | No | FACU | be present, unless disturbed or problematic. |
| _{4.} Barbarea vulgaris | 5 | No | FACU | Definitions of Four Vegetation Strata: |
| 5 | | · · · · · · · · · · · · · · · · · · · | | Demilions of Four vegetation Strata. |
| | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or |
| 6 | | | <u> </u> | more in diameter at breast height (DBH), regardless of |
| 7 | | · | | height. |
| 8 | | · | | Conting/Charte Westernlagts such discussions lass |
| 9 | | | | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10. | | | | m) tall. |
| | | · | | , |
| 11 | | · | | Herb – All herbaceous (non-woody) plants, regardless |
| | | = 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 – 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 | | Present? Yes No 🖌 |
| 50% of total cover: 0 | | total cover: | • | |
| | | | | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | |
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| | | o the dept | | | icator o | or confirm | the absence of indicators.) | |
|------------------------|------------------------------|------------|-------------------|----------------------|-------------------|------------------|--|------------------------|
| Depth | Matrix | | | x Features | - 1 | 1 2 | T / D / | |
| (inches) | Color (moist) | | Color (moist) | <u>%</u> T | Type ¹ | Loc ² | Texture Remarks | |
| 0-8 | 10YR 4/3 | 100 | | | | | CL | |
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| ¹ Type: C=C | Concentration, D=Depl | etion RM- | Reduced Matrix M | S-Masked Sa | and Gra | ains | ² Location: PL=Pore Lining, M=Matrix. | |
| | Indicators: | 0001,101- | reduced matrix, m | | | | Indicators for Problematic Hydri | c Soils ³ : |
| Histoso | | | Dark Surface | <u>- (S7)</u> | | | 2 cm Muck (A10) (MLRA 147) | |
| | pipedon (A2) | | | elow Surface | (S8) (M | I D A 1/7 | | , |
| | listic (A3) | | · | urface (S9) (N | | | (MLRA 147, 148) | |
| | () | | | · / · | | 47, 140) | | 0) |
| | en Sulfide (A4) | | | ed Matrix (F2) |) | | Piedmont Floodplain Soils (F1 | 9) |
| | d Layers (A5) | | Depleted Ma | . , | | | (MLRA 136, 147) | - |
| | uck (A10) (LRR N) | <i></i> | Redox Dark | () | _\ | | Very Shallow Dark Surface (T | F12) |
| - | ed Below Dark Surface | e (A11) | | rk Surface (F | 7) | | Other (Explain in Remarks) | |
| | ark Surface (A12) | | Redox Depre | () | | | | |
| | Mucky Mineral (S1) (L | RR N, | | nese Masses (| (F12) (l | _RR N, | | |
| MLR | A 147, 148) | | MLRA 13 | 6) | | | | |
| Sandy | Gleyed Matrix (S4) | | Umbric Surfa | ace (F13) (ML | RA 13 | 6, 122) | ³ Indicators of hydrophytic vegeta | tion and |
| Sandy | Redox (S5) | | Piedmont Florence | oodplain Soils | s (F19) | (MLRA 14 | 8) wetland hydrology must be pres | sent, |
| Strippe | d Matrix (S6) | | Red Parent I | Material (F21) |) (MLR/ | A 127, 147 |) unless disturbed or problematic | |
| Restrictive | Layer (if observed): | | | | - | | | |
| Type: rc | | | | | | | | |
| | nches): <u></u> 8 | | | | | | Hydric Soil Present? Yes I | No 🖌 |
| | | | | | | | | <u> </u> |
| Remarks: | | | | | | | | |
| | | | | | | | | |



Seep data point ppoa415 facing north



Seep data point PPOA406 facing south southeast



Seep data point PPOA404 facing northwest



Seep data point PPOA405 facing south southeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

| Project/Site: Atlantic Coast Pipeline | City/County: Pocahonta | as | _ Sampling Date: 5/25/2016 | | | |
|--|---------------------------------|--|-----------------------------|--|--|--|
| Applicant/Owner: Dominion | | State: WV | | | | |
| Investigator(s): GB, KO | Section, Township, Rar | nge: | | | | |
| Landform (hillslope, terrace, etc.): slope | Local relief (concave, conv | _ Local relief (concave, convex, none): none Slope | | | | |
| Subregion (LRR or MLRA): Lat: 38 | 3.300464 Long | g: <u>-79.851605</u> | Datum: WGS1984 | | | |
| Soil Map Unit Name: | | NWI classif | ication: UPLAND | | | |
| Are climatic / hydrologic conditions on the site typical for the | his 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 ne | eded, explain any answ | ers in Remarks.) | | | |
| SUMMARY OF FINDINGS – Attach site map | o showing sampling point lo | ocations, transect | s, important features, etc. | | | |
| Hydrophytic Vegetation Present? Yes | No_ | A | | | | |

| Hydrophytic Vegetation Present? | Yes | No | Is the Sampled Area | | |
|---|-------|--------------|---------------------|-----|------|
| Hydric Soil Present? | Yes | No <u> 🖌</u> | within a Wetland? | Yes | No 🖌 |
| Wetland Hydrology Present? | Yes 🖌 | No | Willing a Wolland | | |
| Remarks: | | | | | |
| Seep located on slope above ephemeral stream spoa410; surface saturation and surface flow present for approximately 15 feet before entering channel of spoa410 where flow becomes immediately subterranean; lacks hydric soil and hydrophytic vegetation. | | | | | |

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 No 🖌 Depth (inches): | |
| Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 (includes capillary fringe) | Wetland Hydrology Present? Yes <u></u> No |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available: |
| | |
| Remarks: | |
| surface saturation only | |
| | |
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VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: ppoa417

| | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|--|----------|--------------|-----------|---|
| Tree Stratum (Plot size: 30) | | Species? | | |
| 1. none | 0 | Opecies: | Olalus | Number of Dominant Species |
| 1. <u></u> | | · | <u> </u> | That Are OBL, FACW, or FAC:3 (A) |
| 2 | | | | Total Number of Deminent |
| 3 | | | | Total Number of Dominant Species Across All Strata: 7 (B) |
| | | · | | |
| 4 | | · | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 42.85714285 (A/B) |
| 6 | | | | |
| | | · | | Prevalence Index worksheet: |
| 7 | 0 | · | | Total % Cover of: Multiply by: |
| | 0 | = Total Cove | | |
| 50% of total cover: 0 | 20% of | total cover: | 0 | |
| Sapling/Shrub Stratum (Plot size: 15) | | - | | FACW species x 2 =0 |
| 1. Pinus strobus | 3 | Yes | FACU | FAC species 9 x 3 = 27 |
| | | · | | 10 70 |
| 2. Robinia pseudoacacia | 3 | Yes | FACU | FACU species X 4 = |
| _{3.} Hamamelis virginiana | 3 | Yes | FACU | UPL species2 x 5 =10 |
| | 2 | No | FACU | 20 100 |
| 4. Betula lenta | | 110 | TACO | Column Totals: (A) (B) |
| 5. Viburnum acerifolium | 2 | No | UPL | Prevalence Index $= B/A = 3.75$ |
| 6. | | | | |
| | | · | <u> </u> | Hydrophytic Vegetation Indicators: |
| 7 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 8 | | | | |
| | | · | | 2 - Dominance Test is >50% |
| 9 | 13 | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | = Total Cove | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 50% of total cover: 6.5 | 20% of | total cover: | 2.6 | |
| Herb Stratum (Plot size: 5) | | | | data in Remarks or on a separate sheet) |
| 1. Potentilla simplex | 5 | Yes | FACU | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | |
| _{2.} Carex blanda | 3 | Yes | FAC | 1 |
| _{3.} Laportea canadensis | 3 | Yes | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. Agrostis capillaris | 3 | Yes | FAC | be present, unless disturbed or problematic. |
| | | | | Definitions of Four Vegetation Strata: |
| 5. Anemone virginiana | 2 | 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 | | | | Conting/Chrub Wardy 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 |
| | 16 | = Total Cove | ۹r | of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 8 | | total cover: | | |
| | | total 00101. | | Woody vine – All woody vines greater than 3.28 ft in |
| | | | | height. |
| 1. none | 0 | . <u> </u> | | |
| 2 | | | | |
| | | · | | |
| 3 | | · | | |
| 4 | | · | | Hydrophytic |
| 5 | | | | Vegetation |
| | _ | | | Present? Yes No |
| | | = Total Cove | | ···· |
| 50% of total cover:0 | 20% of | total cover: | 0 | |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | • |
| No trees or vines rooted within area having surface saturation | | | | |
| | | | | |
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| Profile Description | : (Describe t | o the dept | h needed to docur | ment the indica | tor or confirm | n the absence of i | ndicators.) | | |
|---|----------------|-------------|---|-------------------------|---------------------------------|----------------------------------|--|----------------|--|
| Depth | Matrix | | Redox Features | | | | | | |
| | lor (moist) | <u>%</u> | Color (moist) | <u>%</u> Тур | e ¹ Loc ² | Texture | Remark | S | |
| 0-5 10YR | 4/3 | 100 | | | | CL | | | |
| 5-18 10YR | 5/3 | 100 | | | | SCL | | | |
| | | | | | | , | | | |
| | | <u> </u> | | <u> </u> | | · | | | |
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| | | | | <u> </u> | | | | | |
| | | | | | | | | | |
| ¹ Type: C=Concentr | ation, D=Deple | etion, RM=F | Reduced Matrix, M | S=Masked Sand | d Grains. | ² Location: PL=P | ore Lining, M=Matr | ix. | |
| Hydric Soil Indicat | | | , | | | | s for Problematic | | |
| Histosol (A1) | | | Dark Surface | e (S7) | | 2 cm | 2 cm Muck (A10) (MLRA 147) | | |
| Histic Epipedon (A2) | | | Polyvalue Be | elow Surface (S8 | B) (MLRA 147, | 148) Coas | 48) Coast Prairie Redox (A16) | | |
| Black Histic (A3) | | | Thin Dark Su | urface (S9) (MLF | RA 147, 148) | (MLRA 147, 148) | | | |
| Hydrogen Sulfide (A4) | | | Loamy Gleye | ed Matrix (F2) | | Piedmont Floodplain Soils (F19) | | | |
| Stratified Layers (A5) | | | Depleted Matrix (F3) | | | (MLRA 136, 147) | | | |
| 2 cm Muck (A10) (LRR N) | | | Redox Dark Surface (F6) | | | Very Shallow Dark Surface (TF12) | | | |
| Depleted Below | | e (A11) | | rk Surface (F7) | | Other | r (Explain in Remar | ks) | |
| Thick Dark Surf | · , | | Redox Depre | · · · | 0) (I DD N | | | | |
| Sandy Mucky M MLRA 147, 1 | | KK N, | Iron-Mangan MLRA 13 | ese Masses (F1 | 2) (LRR N, | | | | |
| | , | | | , | N 136 122) | ³ Indicat | ore of hydrophytic y | reactation and | |
| Sandy Gleyed Matrix (S4) Sandy Redox (S5) | | | Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) | | | | ³Indicators of hydrophytic vegetation and wetland hydrology must be present, | | |
| Stripped Matrix (S6) | | | Red Parent Material (F21) (MLRA 127, 147) | | | | | | |
| Restrictive Layer (| | | | | | | | indio. | |
| Type: none | , | | | | | | | | |
| Depth (inches): | | | | | | | | | |
| | | | | | | Hydric Soll Pre | Sent? Yes | NO T | |
| Remarks: | | | | | | Hydric Soil Pre | esent? Yes | No | |



Seep data point ppoa417 facing northeast



Seep data point PPOA401 facing south



Waterbody PPOA414 facing north



Waterbody PPOA413 facing north-northeast



Waterbody PPOA412 facing northeast



Waterbody PPOA411 facing northwest



Waterbody PPOA410 facing northeast



Waterbody PPOA409 facing north



Waterbody PPOA408 facing east



Waterbody PPOA407 facing west