



**Photograph 365. Stream S076, Upstream, Facing East Northeast**



**Photograph 366. Stream S076, Downstream, Facing West Southwest**





**Photograph 367. Stream S077, Upstream, Facing Northwest**



**Photograph 368. Stream S077, Downstream, Southeast**





**Photograph 369. Stream S078, Upstream, Facing South**



**Photograph 370. Stream S078, Downstream, East**





**Photograph 371. Stream S079, Upstream, Facing South**



**Photograph 372. Stream S079, Downstream, Facing East**





**Photograph 373. Stream S080, Upstream, Facing West**



**Photograph 374. Stream S080, Downstream, Facing East**





**Photograph 375. Stream S081 (Salt Lick Creek [Little Salt Creek]), Upstream, Facing Northeast**



**Photograph 376. Stream S081 (Salt Lick Creek [Little Salt Creek]), Downstream, Facing Northwest**





**Photograph 377. Stream S082, Upstream, Facing Southwest**



**Photograph 378. Stream S082, Downstream, Facing Northeast**





**Photograph 379. Stream S083, Upstream, Facing West**



**Photograph 380. Stream S083, Downstream, Facing East**





**Photograph 381. Stream S084, Upstream, Facing West**



**Photograph 382. Stream S084, Downstream, Facing South**





**Photograph 383. Stream S085, Upstream, Facing West**



**Photograph 384. Stream S085, Downstream, Facing North**





**Photograph 385. Stream S086 Upstream, Facing Southwest**



**Photograph 386. Stream S086, Downstream, Facing North**





**Photograph 387. Stream S087, Upstream, Facing Northeast**



**Photograph 388. Stream S087, Downstream, Facing South**





**Photograph 389. Stream S088, Upstream, Facing East**



**Photograph 390. Stream S088, Downstream, Facing Northeast**





**Photograph 391. Stream S089, Upstream, Facing South**



**Photograph 392. Stream S089, Downstream, Facing North**





**Photograph 393. Stream S090, Upstream, Facing Southwest**



**Photograph 394. Stream S090, Downstream, Facing Northeast**





**Photograph 395. Stream S091, Upstream, Facing Southwest**

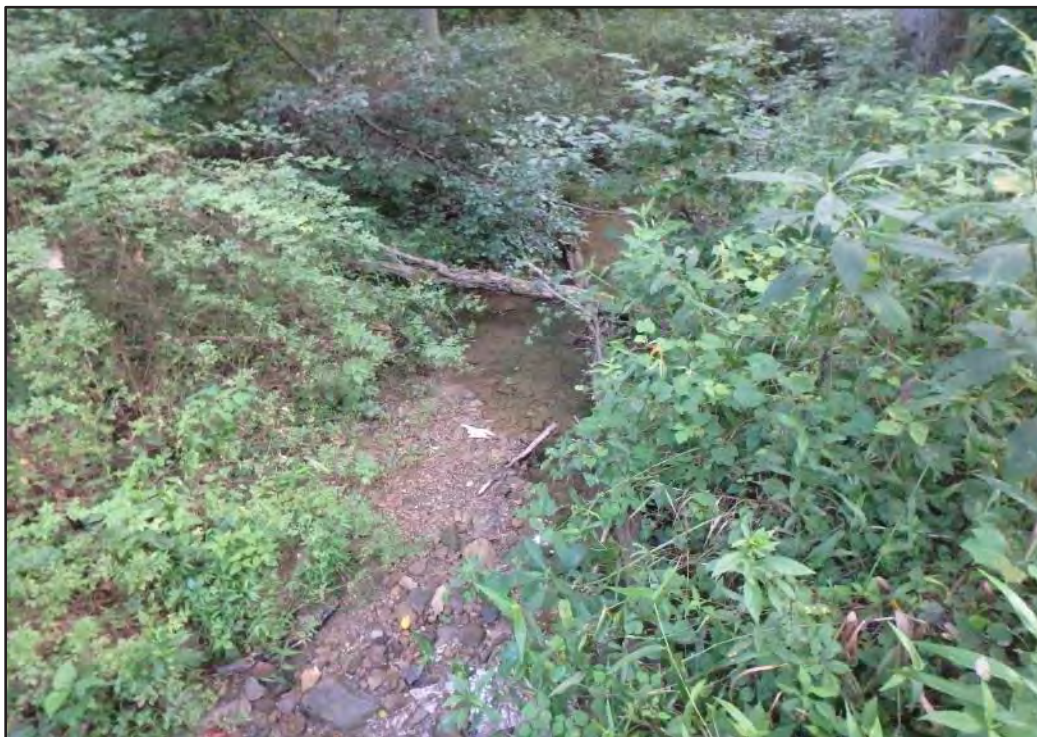


**Photograph 396. Stream S091, Downstream, Facing Northeast**





**Photograph 397. Stream S092, Upstream, Facing Southwest**



**Photograph 398. Stream S092, Downstream, Facing North**





**Photograph 399. Stream S093, Upstream, Facing Southeast**



**Photograph 400. Stream S093, Downstream, Facing Northwest**





**Photograph 401. Stream S094 (Salt Lick Creek [Little Salt Creek]), Upstream, Facing East**



**Photograph 402. Stream S094 (Salt Lick Creek [Little Salt Creek]), Downstream, Facing Southwest**





**Photograph 403. Stream S095, Upstream, Facing West**



**Photograph 404. Stream S095, Downstream, Facing East**





**Photograph 405. Stream S096, Upstream, Facing Northeast**



**Photograph 406. Stream S096, Downstream, Facing Southwest**





**Photograph 407. Stream S097, Upstream, Facing East**



**Photograph 408. Stream S097, Downstream, Facing West**





**Photograph 409. Stream S098, Upstream, Facing West**



**Photograph 410. Stream S098, Downstream, Facing East**





**Photograph 411. Stream S099, Upstream, Facing West**



**Photograph 412. Stream S099, Downstream, Facing East**





**Photograph 413. Stream S100, Upstream, Facing South**



**Photograph 414. Stream S100, Downstream, Facing North**





**Photograph 415. Stream S101, Upstream, Facing West**



**Photograph 416. Stream S101, Downstream, Facing East**





**Photograph 417. S102, Upstream, Facing Southeast**



**Photograph 418. S102, Downstream, Facing Northwest**





**Photograph 419. Stream S103, Upstream, Southeast**



**Photograph 420. Stream S103, Downstream, Facing Northeast**





**Photograph 421. Stream S104, Upstream, Facing Southeast**



**Photograph 422. Stream S104, Downstream, Facing Northwest**





**Photograph 423. Representative upland habitat, Facing South**



**Photograph 424. Representative upland habitat, Facing West**





**Photograph 425. Representative upland habitat, Facing Northeast**



**Photograph 426. Representative upland habitat, Facing South**





**Photograph 427. Representative upland habitat, Facing Southwest**



**Photograph 428. Representative upland habitat, Facing East**





**Photograph 429. Representative upland habitat, Facing North**



**Photograph 430. Representative upland habitat, Facing East**





**Photograph 431. Representative upland habitat, Southwest**



**Photograph 432. Representative upland habitat, Facing North**





**Photograph 433. Representative upland habitat, Facing East**



**Photograph 434. Representative upland habitat, Facing South**





**Photograph 435. Representative upland habitat, Facing Northwest**



**Photograph 436. Representative upland habitat, Facing North**



## **APPENDIX B**

### **Wetland Determination Data Forms**



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp Ross CO Sampling Date: 8/16/17  
 Applicant/Owner: ACP State: OK Sampling Point: W001-PEM  
 Investigator(s): BTM / MGA Section, Township, Range: no dividal by PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR or MLRA): LRRN Lat: 39.2354 Long: -82.7924 Datum: NAD83  
 Soil Map Unit Name: Wych silt loam, 2-6% slopes NWI classification: NA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>    </u>	

### Remarks:

Sample point located in an active livestock pasture and serves as PEM ref to W001A-PEM-CAT1, W001B-PEM-CAT1 & W001C-PEM-CAT1

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>X</u> Surface Water (A1)	<u>    </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u>    </u> Sparsely Vegetated Concave Surface (B8)
<u>X</u> Saturation (A3)	<u>    </u> Drainage Patterns (B10)
<u>    </u> Water Marks (B1)	<u>    </u> Moss Trim Lines (B16)
<u>    </u> Sediment Deposits (B2)	<u>    </u> Dry-Season Water Table (C2)
<u>    </u> Drift Deposits (B3)	<u>    </u> Crayfish Burrows (C8)
<u>    </u> Algal Mat or Crust (B4)	<u>    </u> Saturation Visible on Aerial Imagery (C9)
<u>    </u> Iron Deposits (B5)	<u>    </u> Stunted or Stressed Plants (D1)
<u>    </u> Inundation Visible on Aerial Imagery (B7)	<u>X</u> Geomorphic Position (D2)
<u>    </u> Water-Stained Leaves (B9)	<u>    </u> Shallow Aquitard (D3)
<u>    </u> Aquatic Fauna (B13)	<u>    </u> Microtopographic Relief (D4)
	<u>X</u> FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>2"</u>	Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>
Water Table Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>0.1'</u>	
Saturation Present? (includes capillary fringe)	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>0.1'</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

### Remarks:

meets A1, A2, A3, D2 & D5



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

 Sampling Point: 10001-PEM

Tree Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Sapling/Shrub Stratum (Plot size: <u>15' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Herb Stratum (Plot size: <u>5' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>40</u>	<u>yes</u>	<u>OBL</u>
2. <u>Persicaria hydropiper</u>	<u>15</u>	<u>no</u>	<u>FACW</u>
3. <u>Eupatorium perfoliatum</u>	<u>5</u>	<u>no</u>	<u>FACW</u>
4. <u>Echinochloa crus-galli</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>
5. <u>Juncus effusus</u>	<u>10</u>	<u>no</u>	<u>FACW</u>
6.			
7.			
8.			
9.			
10.			
11.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: <u>5' C</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes ☒ No \_\_\_\_\_

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

Hydrophytic vegetation is dominant



Sampling Point: WOOD-PEM

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbria Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

- \_\_\_ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes      No     

Depth (inches): \_\_\_\_\_

meets F3 - Depleted Matrix



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo-Pine Ridge City/County: Ross Co Sampling Date: 8/16/17  
 Applicant/Owner: AEP Jefferson Twp State: OH Sampling Point: W001-001  
 Investigator(s): B. Smith NBP Section, Township, Range: N0 P1 S8  
 Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): valley Slope (%): 2  
 Subregion (LRR or MLRA): LRRN Lat: 39.123521010 Long: -82.745223 Datum: NAD83  
 Soil Map Unit Name: W08-Watt silt loam, 2-6% slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

### Remarks:

Sample point located in an active live stock pasture  
 d service as a upland up to W001A-PEN-CAT 1, W001B-PEN-CAT 1  
 & W001C-PEN-CAT 1

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Iron Deposits (B5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	

### Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

### Remarks:

No primary and secondary wetland hydrology indicators  
 were observed



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

 Sampling Point: 10001-UPL

Tree Stratum (Plot size: <u>35'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

50% of total cover:        = Total Cover  
20% of total cover:       

Sapling/Shrub Stratum (Plot size: <u>15'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

50% of total cover:        = Total Cover  
20% of total cover:       

Herb Stratum (Plot size: <u>5'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Ambrosia artemisiifolia</i>	5	N	FACU
2. <i>Trifolium repens</i>	15	Y	FACU
3. <i>Trifolium pratense</i>	20	Y	FACU
4. <i>Dactylis glomerata</i>	30	Y	FACU
5. <i>Syllium alaberrant</i>	10	N	UPL
6.			
7.			
8.			
9.			
10.			
11.			

50% of total cover: 35 = Total Cover  
20% of total cover: 14

Woody Vine Stratum (Plot size: <u>30'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

50% of total cover:        = Total Cover  
20% of total cover:       

**Dominance Test worksheet:**

 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

 Total Number of Dominant Species Across All Strata: 3 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>280</u> (B)

 Prevalence Index = B/A = 4
**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**

Yes ☐ No ☒

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

Upland vegetation is dominant



Sampling Point: WOOD-UP

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: Compacted Clay/stone  
Depth (inches): 19"

Hydric Soil Present? Yes No ☒

## Nan hydric soils



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp Ross CO Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W002-DEM  
 Investigator(s): BTM/NGP Section, Township, Range: Not divided by PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR or MLRA): LPVV Lat: 39.233945 Long: -82.791565 Datum: NAD83  
 Soil Map Unit Name: Wyatt silty clay loam, 12 to 16% slopes, eroded NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N Soil N or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes 1 No       
 Are Vegetation N Soil N or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present? Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	
Remarks: <u>Sample point located on a bench along a stream in an active cattle pasture + serves as PEM rep for W002-DEM-CAT 2</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>		
Remarks: <u>Meets D2 &amp; D5 - 2 secondary indicators</u>		



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

Sampling Point: WOOD2-DEM

Tree Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Sapling/Shrub Stratum (Plot size: <u>15' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Herb Stratum (Plot size: <u>5' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Leersia virginiana</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
3. <u>Juncus acrocarpus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
4. <u>Aster purpureus</u>	<u>10</u>	<u>No</u>	<u>FACW</u>
5. <u>Paspalum conjugatum</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
6.			
7.			
8.			
9.			
10.			
11.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: 45 20% of total cover: 15

Woody Vine Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 1 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by:  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- ☐ 1 - Rapid Test for Hydrophytic Vegetation
  - ☒ 2 - Dominance Test is >50%
  - ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

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

Hydrophytic vegetation is dominant



## SOIL

Sampling Point: W002-PEM

[illegible]



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jackson Twp Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: GA Sampling Point: W003-PEM  
 Investigator(s): BJM/WGP Section, Township, Range: not divided by PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR or MLRA): LERN Lat: 31.234189 Long: -82.7909335 Datum: NAD83  
 Soil Map Unit Name: Wyatt silty clay loam, 12-18% slopes, overl NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u> No <u>    </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u>    </u>		
Remarks: <u>Sample point located on a terrace along a stream &amp; serves as a PEM rep to W003-PEM-CAT1</u>			

## HYDROLOGY

### Wetland Hydrology Indicators:

#### Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> True Aquatic Plants (B14)                  |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Iron Deposits (B5)                        |   |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 |   |
| <input type="checkbox"/> Aquatic Fauna (B13)                       |   |

#### Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |
| <input type="checkbox"/> Drainage Patterns (B10)                   |
| <input type="checkbox"/> Moss Trim Lines (B16)                     |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1)           |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)       |
| <input type="checkbox"/> Shallow Aquitard (D3)                     |
| <input type="checkbox"/> Microtopographic Relief (D4)              |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)          |

### Field Observations:

Surface Water Present? Yes      No X Depth (inches):       
 Water Table Present? Yes      No X Depth (inches):       
 Saturation Present? (includes capillary fringe) Yes      No X Depth (inches):     

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

### Remarks:

meets D2 & D5 - 2 secondary indicators



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

Sampling Point: 0003-DEM

Tree Stratum (Plot size: <u>30'R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Sapling/Shrub Stratum (Plot size: <u>18'R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Herb Stratum (Plot size: <u>6'R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: <u>30'R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across All Strata: 1 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

- \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**

Yes ☒ No \_\_\_\_\_

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

Hydrophytic vegetation is dominant



Sampling Point: WOOD3-PEM

Eastern Mountains and Piedmont – Version 2.0



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp Ross Co. Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W004-DEM  
 Investigator(s): BTM/MSD Section, Township, Range: not divided by P.S.S.  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): None Slope (%): 2  
 Subregion (LRR or MLRA): LRR 14 Lat: 39.234 Long: -82.790 Datum: NAD83  
 Soil Map Unit Name: Went silty clay loam, 12-18% slopes, erodible NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>    </u>	

### Remarks:

Sample point located in a forest - livestock pasture & success  
 is a P.E.M. rep to W004-PEM-CAT 1

## HYDROLOGY

### Wetland Hydrology Indicators:

#### Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Iron Deposits (B5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	

#### Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Microtopographic Relief (D4)
<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>

(includes capillary fringe)

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NA

### Remarks:

meets D2 + D5 - 2 secondary indicators



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

Sampling Point: WOOD-PEM

Tree Stratum (Plot size: <u>8'x8'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Sapling/Shrub Stratum (Plot size: <u>15'x15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Herb Stratum (Plot size: <u>3'x3'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

\_\_\_\_\_ = Total Cover  
50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: <u>5'x5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

- ☒ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes X No \_\_\_\_\_

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

Hydrophytic vegetation is dominant



Sampling Point: W004-PEM

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbria Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Meets F2 Depleted matrix



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp ROSS CO. Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W002, W003  
 Investigator(s): BJM/NGP Section, Township, Range: N0 PLSS 40004-UPL  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR or MLRA): L2R N Lat: 39 2341993 Long: -82 7909825 Datum: NAD83  
 Soil Map Unit Name: Wyatt silt loam 12-18% slopes eroded NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>    </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>    </u> No <u>X</u>
Hydric Soil Present? Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	
Remarks: <u>Sample point is located in an active cattle pasture &amp; features as</u> <u>upland rep. to W002-DEM-CAT2, W003-DEM-CAT1 &amp;</u> <u>W004-DEM-CAT1</u>	

## HYDROLOGY

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



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

Sampling Point: W002, W003  
W004 - UPL

Tree Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Juglans nigra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>
2. <u>Rodinia pseudacacia</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

50% of total cover: 13 25 = Total Cover  
 20% of total cover: 5

Sapling/Shrub Stratum (Plot size: <u>15' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rhus typhina *</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>
2. <u>Rosa multiflora</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____

50% of total cover: 20 40 = Total Cover  
 20% of total cover: 8

Herb Stratum (Plot size: <u>5' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phytolacca americana</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
2. <u>Verbesina alternifolia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
3. <u>Microstegium vimineum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
4. <u>Trifolium pratense</u>	<u>8</u>	<u>N</u>	<u>FACU</u>
5. <u>Lonicera japonica</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
6. <u>Taraxacum officinale</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
7. <u>Oxalis stricta</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
8. <u>Dactylis glomerata</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____

50% of total cover: 52 103 = Total Cover  
 20% of total cover: 21

Woody Vine Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. <u>None observed</u>	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

\_\_\_\_\_ = Total Cover  
 50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

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

\* Not listed in NWPL so assumed UPL per regional Supplement

Upland vegetation is dominant

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 7 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 28 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>93</u>	x 4 = <u>372</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>168</u> (A)	<u>657</u> (B)

Prevalence Index = B/A = 3.91

Hydrophytic Vegetation Indicators:

- \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation
- \_\_\_ 2 - Dominance Test is >50%
- \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes \_\_\_\_\_ No X



## SOIL

Sampling Point: 442021-WPL

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>†</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- \_\_\_ Histosol (A1)
- \_\_\_ Histic Epipedon (A2)
- \_\_\_ Black Histic (A3)
- \_\_\_ Hydrogen Sulfide (A4)
- \_\_\_ Stratified Layers (A5)
- \_\_\_ 2 cm Muck (A10) (LRR N)
- \_\_\_ Depleted Below Dark Surface (A11)
- \_\_\_ Thick Dark Surface (A12)
- \_\_\_ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- \_\_\_ Sandy Gleyed Matrix (S4)
- \_\_\_ Sandy Redox (S5)
- \_\_\_ Stripped Matrix (S6)

- \_\_\_ Dark Surface (S7)
- \_\_\_ Polyvalue Below Surface (S8) (MLRA 147, 148)
- \_\_\_ Thin Dark Surface (S9) (MLRA 147, 148)
- \_\_\_ Loamy Gleyed Matrix (F2)
- \_\_\_ Depleted Matrix (F3)
- \_\_\_ Redox Dark Surface (F6)
- \_\_\_ Depleted Dark Surface (F7)
- \_\_\_ Redox Depressions (F8)
- \_\_\_ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- \_\_\_ Umbric Surface (F13) (MLRA 136, 122)
- \_\_\_ Piedmont Floodplain Soils (F19) (MLRA 148)
- \_\_\_ Red Parent Material (F21) (MLRA 127, 147)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

## Non hydric soils



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp, Ross Co. Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W005-PEM  
 Investigator(s): BJM/AGP Section, Township, Range: not divided by PLSS  
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 2-5  
 Subregion (LRR or MLRA): LAN Lat: 39.2321955 Long: -82.76847386 Datum: NAD83  
 Soil Map Unit Name: Hayward silt loam, occasionally flooded NWI classification: NA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>    </u>	
Remarks: <u>Sample point located on edge of toe of slope in active livestock pasture - + Series as a PEM rep to W005-PEM-CATMOD2</u>		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>2 ft</u> Water Table Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>NA</u>		
Remarks: <u>meets A1, B8, &amp; D2</u>		



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

Sampling Point: WOODS-DEM

**Tree Stratum** (Plot size: 30' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

None Observed

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Sapling/Shrub Stratum** (Plot size: 15' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

None Observed

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Herb Stratum** (Plot size: 5' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>40</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>10</u>	<u>No</u>	<u>FACW</u>
3.	<u>15</u>	<u>Yes</u>	<u>FACW</u>
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

\_\_\_\_\_ = Total Cover  
50% of total cover: 32.5 20% of total cover: 13

**Woody Vine Stratum** (Plot size: 30' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

None Observed

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals:	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes ☒ No \_\_\_\_\_

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

Hydrophytic vegetation is dominant



## SOIL

Sampling Point: W005-DEM

[illegible]

**Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.**

<sup>3</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:

- \_\_\_ Histosol (A1)
- \_\_\_ Histic Epipedon (A2)
- \_\_\_ Black Histic (A3)
- \_\_\_ Hydrogen Sulfide (A4)
- \_\_\_ Stratified Layers (A5)
- \_\_\_ 2 cm Muck (A10) (LRR N)
- \_\_\_ Depleted Below Dark Surface (A11)
- \_\_\_ Thick Dark Surface (A12)
- \_\_\_ Sandy Mucky Mineral (S1) (LRR N,  
    **MLRA 147, 148**)
- \_\_\_ Sandy Gleyed Matrix (S4)
- \_\_\_ Sandy Redox (S5)
- \_\_\_ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☒ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (If observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No       

Remarks:

Meets F2 - Looming Glycyl Matrix & F3 - Depleted matrix



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp ROSS CO Sampling Date: 6/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W006-PEM  
 Investigator(s): BDM/NGP Section, Township, Range: Not divided by PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Slope (%): 0  
 Subregion (LRR or MLRA): LRRN Lat: 39.2309 Long: -82.78693 Datum: NAD83  
 Soil Map Unit Name: Haymond silt loam, occasionally flooded NWI classification: 1A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation A, Soil W, or Hydrology A significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil W, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>    </u>	

Remarks:  
Sample point located in an active forest/pasture + serves as a PEM rep to W006-PEM-CATMOD2

## HYDROLOGY

### Wetland Hydrology Indicators:

#### Primary Indicators (minimum of one is required; check all that apply)

- ☒ 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)

- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ Microtopographic Relief (D4)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>1"</u>
Water Table Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>16"</u>
Saturation Present? (includes capillary fringe)	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>0"</u>

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
N/A

### Remarks:

Meets D2 & D5 - 2 secondary indicators



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

Sampling Point: 10000-PEM

Tree Stratum (Plot size: <u>30'K</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Sapling/Shrub Stratum (Plot size: 15'K)

1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Herb Stratum (Plot size: 5'K)

1.	<u>Impatiens capensis</u>	<u>80</u>	<u>f's</u>	<u>FACW</u>
2.	<u>Leonurus virginianus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
3.	<u>Carex crinita</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

\_\_\_\_\_ = Total Cover  
50% of total cover: 105 20% of total cover: 21

Woody Vine Stratum (Plot size: 30'K)

1.			
2.			
3.			
4.			
5.			

\_\_\_\_\_ = Total Cover  
50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = \_\_\_\_\_

Hydrophytic Vegetation Indicators:

- ☒ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes ☒ No \_\_\_\_\_

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

Hydrophytic vegetation is dominant



Sampling Point: WOODCO-PEM

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.		Location: PL=Pore Lining, M=Matrix.
<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>MLRA 147</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>MLRA 147, 148</b> )	<input type="checkbox"/> ( <b>MLRA 147, 148</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> ( <b>MLRA 136, 147</b> )
<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR N</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) ( <b>LRR N, MLRA 147, 148</b> )	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR N, MLRA 136</b> )	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) ( <b>MLRA 136, 122</b> )	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 148</b> )	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) ( <b>MLRA 127, 147</b> )	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <u>X</u> No _____
--	--

Remarks: Meets F2 -Loamy Gleyed Matrix



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp Ross Co. Sampling Date: 8/14/7  
 Applicant/Owner: AEP State: OH Sampling Point: W007-PEM  
 Investigator(s): BTM/NGD Section, Township, Range: not divided by PLS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2-5  
 Subregion (LRR or MLRA): LAR N Lat: 39.2305718 Long: -83.78669827 Datum: NAD83  
 Soil Map Unit Name: Haymond silt loam, occasionally flooded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No       
 Hydric Soil Present? Yes X No       
 Wetland Hydrology Present? Yes X No     

Is the Sampled Area within a Wetland? Yes X No     

### Remarks:

Sample point located in a floodplain valley & serves as a PEM AEP to W007-PEM-CAT 1

## HYDROLOGY

### Wetland Hydrology Indicators:

#### Primary Indicators (minimum of one is required; check all that apply)

     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)

     True Aquatic Plants (B14)  
     Hydrogen Sulfide Odor (C1)  
     Oxidized Rhizospheres on Living Roots (C3)  
     Presence of Reduced Iron (C4)  
     Recent Iron Reduction in Tilled Soils (C6)  
     Thin Muck Surface (C7)  
     Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

     Surface Soil Cracks (B6)  
     Sparsely Vegetated Concave Surface (B8)  
X Drainage Patterns (B10)  
     Moss Trim Lines (B16)  
     Dry-Season Water Table (C2)  
     Crayfish Burrows (C8)  
     Saturation Visible on Aerial Imagery (C9)  
     Stunted or Stressed Plants (D1)  
X Geomorphic Position (D2)  
     Shallow Aquitard (D3)  
     Microtopographic Relief (D4)  
X FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes      No X Depth (inches):       
 Water Table Present? Yes      No X Depth (inches):       
 Saturation Present? Yes      No X Depth (inches):       
 (includes capillary fringe)

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

### Remarks:

Meets B10, D2 & D5



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

Sampling Point: WOOD-PEM

**Tree Stratum** (Plot size: 30'x)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

*None observed*

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_ = Total Cover

**Sapling/Shrub Stratum** (Plot size: 15'x)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

*None observed*

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_ = Total Cover

**Herb Stratum** (Plot size: 5'x)

	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>15</u>	<u>NO</u>	<u>FACW</u>
2.	<u>10</u>	<u>NO</u>	<u>FAL</u>
3.	<u>10</u>	<u>NO</u>	<u>FACW</u>
4.	<u>25</u>	<u>YES</u>	<u>OBL</u>
5.	<u>10</u>	<u>NO</u>	<u>FAL</u>
6.	<u>35</u>	<u>YES</u>	<u>FAL</u>
7.			
8.			
9.			
10.			
11.			

50% of total cover: 52.5 20% of total cover: 21 = Total Cover

**Woody Vine Stratum** (Plot size: 30'x)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

*None observed*

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_ = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals:	(A) (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>

☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**

Yes ☒ No ☐

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

*Hydrophytic vegetation is dominant*



Sampling Point: W007-PEM

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

- 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Meets F3 - Depleted Matrix



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Ross Co Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W005, W006  
 Investigator(s): BDM/NGP Section, Township, Range: NO PLSS & W007-UPL  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): W005 Slope (%): 5  
 Subregion (LRR or MLRA): LRRN Lat: 39.231889 Long: -82.788693 Datum: WGS84  
 Soil Map Unit Name: Hd - Haymond silt loam, occasionally flooded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks:  
Sample point located in an active flood plain / cattle pasture + serves as a upland rep to  
W005-PEM-CAT MOD2  
W006-PEM-CAT MOD2  
W007-PEM-CAT I

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:  
Meets D2 - 1 secondary indicator does not meet criteria for wetland hydrology.



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

Sampling Point: WO05, WO06  
+WO07+UPL

Tree Stratum (Plot size: <u>30'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

50% of total cover: — = Total Cover  
20% of total cover: —

Sapling/Shrub Stratum (Plot size: <u>15'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

50% of total cover: 25 = Total Cover  
20% of total cover: 10

Herb Stratum (Plot size: <u>5'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

50% of total cover: 48 = Total Cover  
20% of total cover: 19

Woody Vine Stratum (Plot size: <u>3'x</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

50% of total cover: — = Total Cover  
20% of total cover: —

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  
Total Number of Dominant Species Across All Strata: 4 (B)  
Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>75</u>	x 4 = <u>300</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>145</u> (A)	<u>500</u> (B)

Prevalence Index = B/A = 3.44

**Hydrophytic Vegetation Indicators:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes — No ✓

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

Upland vegetation is dominant



Sampling Point: 4 W007-UP

[illegible]



# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Vigo - Pine Ridge City/County: Jefferson Twp Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W008-PEM  
 Investigator(s): OSM/VGA Section, Township, Range: not divided by PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR or MLRA): LEW N Lat: 39.2276745 Long: -82.78488457 Datum: NAD83  
 Soil Map Unit Name: Wyatt silty clay loam, 12-18% slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u>
Hydric Soil Present? Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	
Remarks: <u>Sample point located on a terrace along a stream +</u> <u>Serves as a DEM rep to W008-PEM-CAT 2</u>	

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ 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)

- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

### Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☒ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes      No X Depth (inches):       
 Water Table Present? Yes      No X Depth (inches):       
 Saturation Present? Yes      No X Depth (inches):       
 (includes capillary fringe)

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
N/A

### Remarks:

meets B10, D2 & D5



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

Sampling Point: W0008 PEM

**Tree Stratum** (Plot size: 30' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals:	(A) (B)

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators:**

- ☒ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Sapling/Shrub Stratum** (Plot size: 15' L)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

**Herb Stratum** (Plot size: 5' L)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

**Woody Vine Stratum** (Plot size: 30' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

Hydrophytic Vegetation Present?

Yes X No

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

Hydrophytic vegetation is dominant



## SOIL

Sampling Point: WOODR-PEM

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>a</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  
Hydric Soil Indicators:

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- **Stripped Matrix (S6)**

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- ~~—~~ Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 138)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- 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)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (If observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No

Remarks:

meets F3 - depleted matrix



# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Vigo-Pine Ridge City/County: Jackson CO Sampling Date: 8/16/17  
 Applicant/Owner: AEP State: OH Sampling Point: W008-UPL  
 Investigator(s): BTM/NGP Section, Township, Range: NO PLSS  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 39.228529 Long: -82.785027 Datum: NAD83  
 Soil Map Unit Name: Haymond silt loam, occasionally flooded NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>    </u> No <u>X</u>
Hydric Soil Present? Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	
Remarks: Taken in an old hayfield & serves as upland rep. for W008-PEM-CAT2	

## HYDROLOGY

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



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

 Sampling Point: W008-UPL

Tree Stratum (Plot size: <u>30' R</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. <u>None observed</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)														
2.				Total Number of Dominant Species Across All Strata: <u>1</u> (B)														
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
4.				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)
Total % Cover of:	Multiply by:																	
OBL species	x 1 =																	
FACW species	x 2 =																	
FAC species	x 3 =																	
FACU species	x 4 =																	
UPL species	x 5 =																	
Column Totals:	(A) (B)																	
5.																		
6.																		
7.																		
= Total Cover				Prevalence Index = B/A =														
50% of total cover: 20% of total cover:																		
<b>Sapling/Shrub Stratum (Plot size: <u>15' R</u>)</b>																		
1. <u>None observed</u>																		
2.				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
3.																		
4.																		
5.																		
= Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
50% of total cover: 20% of total cover:																		
<b>Herb Stratum (Plot size: <u>5' R</u>)</b>																		
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Dactylis glomerata</u>	<u>20</u>	<u>N</u>	<u>FACU</u>	<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
3. <u>Trifolium pratense</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
4. <u>Veronica noveboracensis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
5.																		
6.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
7.																		
8.																		
9.																		
= Total Cover																		
50% of total cover: 20% of total cover:																		
<b>Woody Vine Stratum (Plot size: )</b>																		
1.																		
2.																		
3.																		
4.																		
5.																		
= Total Cover																		
50% of total cover: 20% of total cover:																		
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>  <u>Wetland vegetation is dominant</u>																		



Sampling Point: W008-UPL

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

## Non hydric soils



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**3/29/2018 12:48:22 PM**

**in**

**Case No(s). 18-0030-EL-BTX**

Summary: Application (filed in 15 Parts) electronically filed by Ms. Christen M. Blend on behalf of AEP Ohio Transmission Power Company, Inc.