

PIONEER DEVELOPMENT, LLC

Wetland Delineation Report for Project Cardinal

PROJECT CARDINAL REVISION 0 MAY 23, 2025



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List of Abbreviations

Abbreviation	Term/Phrase/Name
APT	Antecedent Precipitation Tool
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	Facultative plants
FACU	Facultative upland plants
FACW	Facultative wetland plants
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FSA	Farm Service Agency
FWD	Farmed Wetland Determination
I	Intermittent
LRR	Land Resource Region
NFHL	National Flood Hazard Layer
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWS	National Weather Service
OBL	Obligate wetland plant
OHWM	Ordinary High Water Mark
PEMf	Palustrine emergent farmed wetland
Project	Project Cardinal
Regional Supplement	Regional supplements to the 1987 Wetlands Delineation Manual
RPW	Relatively Permanent Water
S	Stream
SDA	Soil Data Access
SP	Sample Plot
SSURGO	Soil Survey Geographic
Survey Area	Approximately 1,041 acres of land (Figure 1, Appendix A)



Abbreviation	Term/Phrase/Name
UPL	Upland plants
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WETS Table	NRCS Climate Analysis for Wetlands Table
WOTUS	Waters of the United States



1.0 Introduction

Burns and McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by Pioneer Development LLC to conduct a wetland delineation for the proposed Project Cardinal (Project) in Bristol Township, Kendall County, Illinois (Figure 1, Appendix A). The Project would consist of construction, operation, and maintenance of a data center and cooling topologies, and a potential transmission line. The Survey Area, for the purpose of this analysis, includes approximately 1,041 acres of land identified for the proposed Project.

The purpose of this assessment was to identify wetlands and surface waters present within the Survey Area that may be considered "Waters of the United States" (WOTUS) and subject to regulation under the federal Clean Water Act (CWA) by the U.S. Army Corps of Engineers (USACE). The USACE and the U.S. Environmental Protection Agency (EPA) jointly define wetland as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (42 Fed. Reg. 37128-29). WOTUS are defined using the definition in 88 FR 61964.

Burns & McDonnell conducted a wetland delineation on April 24, 2025, to identify the location and extent of wetlands present within the Survey Area. This report documents the methods and results of the desktop and field investigations conducted to identify wetlands and surface waters for the Project.



2.0 Methods

The following sections summarize the methods used to complete the desktop review of existing data and to conduct the field investigations within the Survey Area.

2.1 Existing Data Review

Burns and McDonnell reviewed the available background information for the Survey Area prior to conducting the site visits. The information reviewed included the following:

- U.S. Geological Survey (USGS) 7.5-minute topographic maps (Yorkville, IL quadrangle),
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM 2017) from the National Flood Hazard Layer (NFHL)
- USGS National Hydrography Dataset (NHD)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map
- Kendall County Wetland Map
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey for Kendall County

Maps generated from available data are included as Figures 1-4 in Appendix A

Background data aids in identifying locations of potential wetlands and surface waters. However, as these features may not have been field verified or may have been modified since the data was published, the field analyses supersede the mapped data.

2.2 Wetland Delineation

Identification of wetlands is based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology, originally set forth by the USACE in the 1987 Environmental Laboratory publication entitled "Corps of Engineers Wetlands Delineation Manual: Technical Report Y-87-1", commonly referred to as the 1987 Wetlands Delineation Manual (Environmental Laboratory 1987).

The USACE released regional supplements to the 1987 Wetlands Delineation Manual outlining updated technical guidance and procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act. The Survey Area is located within the following regional supplement (Regional Supplement):

 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)

This wetland delineation used the hydrophytic vegetation, hydric soil and wetland hydrology indicators as outlined in the applicable Regional Supplement for each sample point. A general overview of hydrophytic vegetation, hydric soil, and wetland hydrology indicators are provided below. Detailed information for each



indicator can be found in the applicable Regional Supplement. In addition, methodologies for determining wetland quality (where applicable), surface water boundaries, and farmed wetland determinations are provided below.

2.2.1 Hydrophytic Vegetation

To evaluate the presence of hydrophytic vegetation, data are gathered using a graduated series of plots, one for each vegetation stratum. Plot shape and size are dictated by vegetation type, as well as the shape and size of the plant community being evaluated.

The indicator status and percent absolute cover for plants within plots for all vegetation strata are recorded. The indicator status for plant species is based on an estimated probability of occurring in wetlands. This rating system, published by the USACE in 2020 under the title "National Wetland Plant List, version 3.5" (USACE 2020), consists of obligate wetland plants (OBL), facultative-wet plants (FACW), facultative plants (FAC), facultative upland plants (FACU) and upland plants (UPL). Obligate plant species generally grow in water. Facultative plant species can exist in saturated or dry soil conditions, and upland plants typically require dry soil to exist.

2.2.2 Hydric Soil

A description of the soil profile is used to evaluate the presence of hydric soil. The USDA recognizes 28 Land Resource Regions (LRRs) based on soil, climate, and land use. Hydric soil indicators for LRRs presented in the Regional Supplements are a subset of the National Technical Committee for Hydric Soils Field indicators of Hydric Soils in the United States and are regularly modified. The most recent version of Field indicators of Hydric Soils is Version 9.0 (USDA NRCS 2025a), which was used for this delineation.

2.2.3 Wetland Hydrology

Wetland hydrology indicators are separated into four groups and divided into a primary or secondary category based on their estimated reliability in the applicable region. Primary indicators provide stand-alone evidence of a current or recent hydrological event. Secondary indicators provide evidence of recent inundation or saturation when supported by one or more other primary indicators or secondary indicators but should not be used alone.

2.2.4 Surface Water Assessment

Surface waters may only have one or two of the wetland criteria listed above. The USACE defines the ordinary high-water mark (OHWM) as the boundary of surface waters (33 CFR 328.3[F]). The USACE issued an OHWM Identification regulatory guidance letter (USACE, 2005) which defines "the OHWM [as] the line on the shore established by fluctuations of water and is indicated by physical characteristics such as:

- A clear, natural line impressed on the bank;
- Shelving;
- Changes in the character of soil;
- Destruction of terrestrial vegetation;
- The presence of litter and debris; or
- Other appropriate means that consider the characteristics of the surrounding areas."

On January 8, 2025, the USACE and EPA issued the National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (National OHWM Manual; 2025). The National OHWM Manual is a non-



mandatory technical resource which can be used in appropriate situations to assist with identifying and delineating the OHWM.

During low streamflow or drought conditions, the OHWM is used to determine the boundary of a surface water. During extremely high streamflow conditions or flood conditions the boundary of the surface waters cannot accurately be determined. Therefore, surface water boundaries should be delineated when normal streamflow conditions are present.

Evidence of the OHWM is used to differentiate boundaries between surface waters and adjacent wetlands. Changes in vegetation can also be evaluated to determine where true hydrophytic (FAC and FACW) plant species are present versus aquatic or OBL species; however, it should be noted that in many cases vegetation is not present within the channels of surface waters. Vegetation adjacent to surface waters may be limited to species overhanging the banks and channels.

If the presence of surface water is questionable, the USACE will typically conduct a review of historic aerial photographs and historic USGS topographic maps to confirm the current or historic presence of surface waters. This can include segments of streams that are entirely enclosed.

2.2.5 Floristic Quality Assessment

The U.S. Army Corps of Engineers (USACE) Chicago District requires a Floristic Quality Assessment (FQA) for all wetlands. The Chicago Region FQA Calculator developed by the USACE Chicago District using the procedures outlined in the Swink and Wilhelm (1994) publication, Plants of the Chicago Region, is utilized to calculate the Native Floristic Quality Inventory (FQI) and Native Mean C-value. A Native Mean C-value is calculated for the wetlands to gauge the relative amount of disturbance that has occurred at the site. C-values range from 0 to 10; non-native or weedy species are assigned a value of zero and the highest quality native plants are assigned a value of ten. A low Native Mean C-value indicates that the area has likely been highly disturbed and is typically composed of invasive or weedy species.

Native FQI values range from 0 to 60 and describe the quality of vegetative habitat. A native FQI value under 20 signifies a disturbed area with poor vegetative quality and diversity. a native FQI value between 20 and 34 indicates moderate vegetative quality and diversity; a native FQI value between 35 and 49 is considered to be floristically important; and a native FQI value above 50 represents an area of the highest conservation priority.

2.2.6 High Quality Aquatic Resource

The USACE Chicago District defines a High Quality Aquatic Resource (HQAR) as "aquatic areas considered to be regionally critical due to their uniqueness, scarcity, and/or value, and other wetlands considered to perform functions important to the public interest, as defined in 33 CFR Part 320.4(b)(2)." These resources include Advanced Identification sites, bogs, ephemeral wetlands, dune and swale complexes, fens, forested wetlands, sedge meadows, seeps, streams rated A or B for diversity or integrity, or mapped as biologically significant in the Illinois Biological Stream Characterization study, wet prairies, wetlands supporting Federal, or Illinois endangered or threatened species, and wetlands with a Native FQI of 20 or greater or Native Mean C-value of 3.5 or greater. The USACE may consider these areas unsuitable for dredge or fill activities. The Nationwide Permit Program does not include a definition of HQARs, however, the USACE Chicago District uses the above definition when evaluating buffers and mitigation ratios for permanent impacts.



2.3 Farmed Wetland Determination

Where actively farmed areas are present within the Survey Area, the Regional Supplement details methods for identification of wetland hydrology indictors, which includes a Farmed Wetland Determination (FWD). An area that meets the standards of a farmed wetland is not by itself, a jurisdictional wetland. Rather, it is a method that is used in the overall wetland delineation process. A FWD is conducted using methodologies outlined in the National Food Security Act Manual (2010). Climate data, from the closest National Weather Service (NWS) precipitation recording station, is used to determine relative rainfall volume and subsequently define normal and above normal precipitation years. This rainfall and precipitation information is used to create an NRCS Climate Analysis for Wetlands Table (WETS table) which classifies each year as a wet, normal, or dry year. A "Wet Year" indicator slide is selected and serves as a base map to evaluate potential farmed wetland signatures. Then a minimum of five "Normal Years" (preferably 10 years) of Farm Service Agency (FSA) aerial slides are selected and reviewed to determine if the signatures identified from the base map are present. Field investigations are not required for farmed wetland signatures that are not present on three or more "Normal Year" slides out of five, or two of five "Normal Year" slides if the signature is also depicted as a wetland on the NWI Map.



3.0 Results

The following sections describe the results of the existing data review and completed wetland delineation.

3.1 Existing Data Review

Burns & McDonnell reviewed available background information for the Survey Area prior to conducting the site visit. These sources provide an indication of areas where wetlands potentially occur and certain characteristics. A summary of the available background information is presented below and mapped on Figures in Appendix A.

3.1.1 USGS 7.5-minute Topographic Maps

The USGS topographic map indicates the Survey Area crosses predominantly flat terrain (< 5% slopes) of agricultural and undeveloped land. The Survey Area generally drains to the southeast, toward Rob Roy Creek (Figure 2, Appendix A).

3.1.2 FEMA FIRM

The 2017 FIRM indicates there is no FEMA floodplain associated with the unnamed tributary within the Survey Area (Figure 2, Appendix A).

3.1.3 USFWS NWI

The digital format NWI maps were developed by USFWS in collaboration with the USGS, Water Resource Division using data from 1987 and are periodically updated. The maps are prepared primarily by stereoscopic analysis of high-altitude aerial photographs to produce reconnaissance level information on the location, type, and size of wetlands and deepwater habitats. All wetlands are identified based on vegetation, visible hydrology, and geography in accordance with the Cowardin System (Cowardin 1979). According to the USFWS, the aerial photographs reflect conditions during the year and season they were taken; however, there is a margin of error inherent in the use of aerial photographs to delineate wetlands. Therefore, wetland boundaries established through interpretation of aerial photographs may be revised based upon detailed ground survey and historical analysis of an individual site.

A desktop assessment of NWI data indicates one riverine wetland is located within the Survey Area (Figure 3, Appendix A).

3.1.4 USGS NHD

The NHD represents the water drainage network of the United States with features such as rivers, streams, canals, lakes, ponds, coastline, dams, and stream gages. NHD is updated and maintained through partnerships with states and other collaborative bodies. The NHD data indicates Rob Roy Creek and several unnamed tributaries are present within the Survey Area (Figure 3, Appendix A).

3.1.5 USDA NRCS SSURGO

The NRCS Web Soil Survey (USDA NRCS 2025b) is generated from the USDA-NRCS certified data. The NRCS Soil Data Access (SDA) Hydric Soils List (USDA NRCS 2025c) contains a compilation of all map units with either a major or minor component that is at least in part hydric. As the list includes both major and minor



percentages for map units, in some cases most of the map unit may not be hydric. The list is useful in identifying map units that may contain hydric soils.

The NRCS Soils Survey Geographic Database (SSURGO) digital data indicates that 23 soil map units are located within the Survey Area (Figure 4, Appendix A). Of these, five soil units are included on local and national hydric soil lists. These include:

- Drummer silty clay loam, 0 to 2 percent slopes
- Knight silt loam, 0 to 2 percent slopes
- Peotone silty clay loam, 0 to 2 percent slopes
- Elpaso silty clay loam, 0 to 2 percent slopes
- Thorp silt loam, 0 to 2

3.1.6 Farmed Wetland Determination

Climate data from the USEPA Antecedent Precipitation Tool (APT) was used to determine relative rainfall volume and subsequently define normal, dry, and above normal precipitation years. Specific dates were available for Google Earth aerial imagery and the APT was used to define normal, dry, and above normal precipitation for these dates. A total of one "Wet Year" (2013), four "Normal Years" (2015, 2017, 2018, and 2024), and one "Dry Year" (2023) were utilized. Many areas were not sampled in the field due to the absence of one or more wetland indicators. A formal FWD is provided in Appendix D.

3.2 Site Investigation Results

One stream and two wetlands were delineated within the Survey Area. The Antecedent Precipitation Tool (APT) results indicated the Survey Area was experiencing normal conditions at the time of the survey (Appendix B). The wetlands are summarized in Table 1 below and are mapped on Figure 5 in Appendix A. The singular surface water is summarized in Table 3 below and mapped on Figure 5 in Appendix A. Wetland Determination Data Forms from the applicable Regional Supplement were completed for sample points taken in areas determined not to be wetland and are included in Appendix B. As neither wetland featured any vegetation, the FQA was not calculated. Natural color photographs of the sample plots and surface water are included in Appendix C. Locations of sample plots, and stream banks surveyed using a sub-meter accurate Global Positioning System unit.

3.2.1 Wetlands

Two wetlands were delineated within the Survey Area. Refer to Table 1 below for the details:

Table 1: Summary of Wetlands within the Survey Area

Wetland Number ^a	Wetland Type ^b	Dominant Vegetation ^c	Hydric Soil Indicator(s) ^d	Wetland Hydrology Indicator(s)°	Area of Wetland Delineated in Survey Area (acre)	WOTUS (Y/N)
W-1	PEMf		F6	A3, C9, D2	0.12	N
W-2	PEMf		F6	C9, D2	0.08	N

⁽a) Assigned by Burns & McDonnell staff during the Site Investigation; W = Wetland.

⁽e) Indicator code for wetland hydrology: A3 = Saturation, C9 = Saturation Visible on Aerial Imagery, D2 = Geomorphic Position.



⁽b) Symbols for wetland type: PEMf = palustrine emergent farmed wetland.

⁽c) No vegetation was present, both wetlands are located within agricultural fields. Vegetation is assumed to be hydrophytic due to prevalence of other wetland indicators.

⁽d) Indicator code for hydric soil: F6 = Redox Dark Surface.

3.2.2 Areas Determined Not to Meet Wetland Criteria

Areas identified during the desktop review due to changes in vegetative cover or occurrence within the NWI dataset were investigated in the field and were determined to not meet wetland criteria. These areas lacked one or more wetland criteria and were not considered wetlands at the time of the site investigation. Table 1 provides a summary of the wetland indicators for sample plots recorded in these areas.

Table 2: Summary of Sample Plots Not Determined to Meet Wetland Criteria within the Survey Area

Sample Plot (SP)	Dominant Vegetation ^a	Hydric Soil Indicator(s) ^b	Wetland Hydrology Indicator(s)°
SP-1	Tall fescue	F6	D2, C9
SP-2	Tall fescue		C9
SP-5			A3

⁽a) Tall fescue (Lolium arundinaceum).

Sample Point 1 (SP-1)

SP-1 is located within a concave depression within an agricultural field and was investigated due to the landform. No indicators of hydrophytic vegetation were present at the time of the site visit. Only one secondary hydrology indicator, Geomorphic Position (D2) and hydric soil were identified at this location. Due to the lack of hydrophytic vegetation and additional hydrology indicators, this area was determined not to meet wetland conditions.

Sample Point 5 (SP-5)

SP-5 is located on a flat, linear area within an agricultural field and was investigated due to Saturation. No indicators of hydrophytic vegetation or hydric soil were present at the time of the site visit. Saturation was present only in the first 3-4 inches of soil and was likely due to recent rain. Due to the lack of hydrophytic vegetation and hydric soil indicators, this area was determined not to meet wetland conditions.



⁽b) Indicator code for hydric soil: F6 = Redox Dark Surface.

⁽c) Indicator code for wetland hydrology: D2 = Geomorphic Position, C9 – Saturation Visible on Aerial Imagery, A3 = Saturation.

3.2.3 Streams

A total of one surface water was delineated within the Survey Area. Refer to Table 3 below for details of the stream.

Table 3: Summary of Streams within the Survey Area

Stream Number ^a	Stream Type ^b	WOTUS°	Stream Name ^d	OHWM Width (feet)	OHWM Bank Height (feet)	Depth at OHWM (feet)	Length of Delineated Stream
S-1	I/RPW	Y	Rob Roy Creek	8	4	4	10, 602
			Total:				10, 602

⁽a) Assigned by Burns & McDonnell staff during the site investigation; S = stream.



⁽b) I = Intermittent; RPW = Relatively Permanent Water

⁽c) Jurisdiction is based on professional judgement using the September 8, 2023, revised definition of WOTUS (88 FR 61964) which conforms to the Sackett c. Environmental Protection Agency supreme court decision dated May 25, 2023.

⁽d) Stream name follows USGS topographic map, NHD, or state/local data source.

4.0 Summary

Burns & McDonnell conducted a wetland delineation of the Survey Area to identify wetlands and other waterbodies on April 24, 2025. One intermittent stream and two wetlands were delineated within the Survey Area.

The delineated stream within the Survey Area is anticipated to be WOTUS and under the jurisdiction of the USACE. This jurisdictional recommendation is based on professional judgment using the current guidance at the time of this report. Jurisdictional surface waters and wetlands are defined by the "Revised Definition of WOTUS" (88 FR 61964) which conforms to the Sackett v. Environmental Protection Agency supreme court decision dated May 25, 2023.



5.0 References

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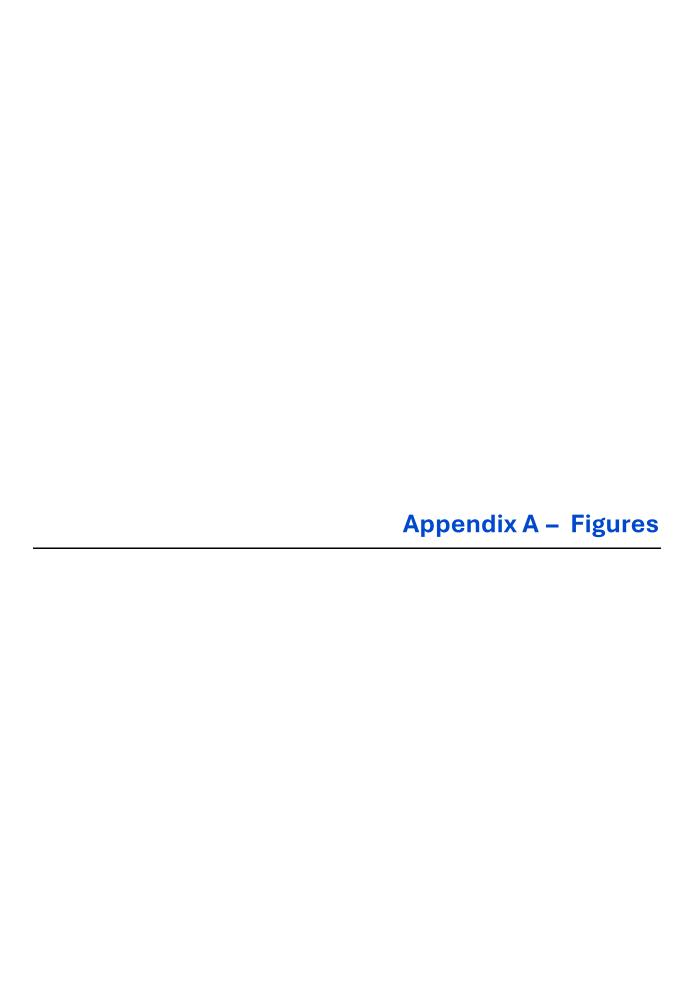
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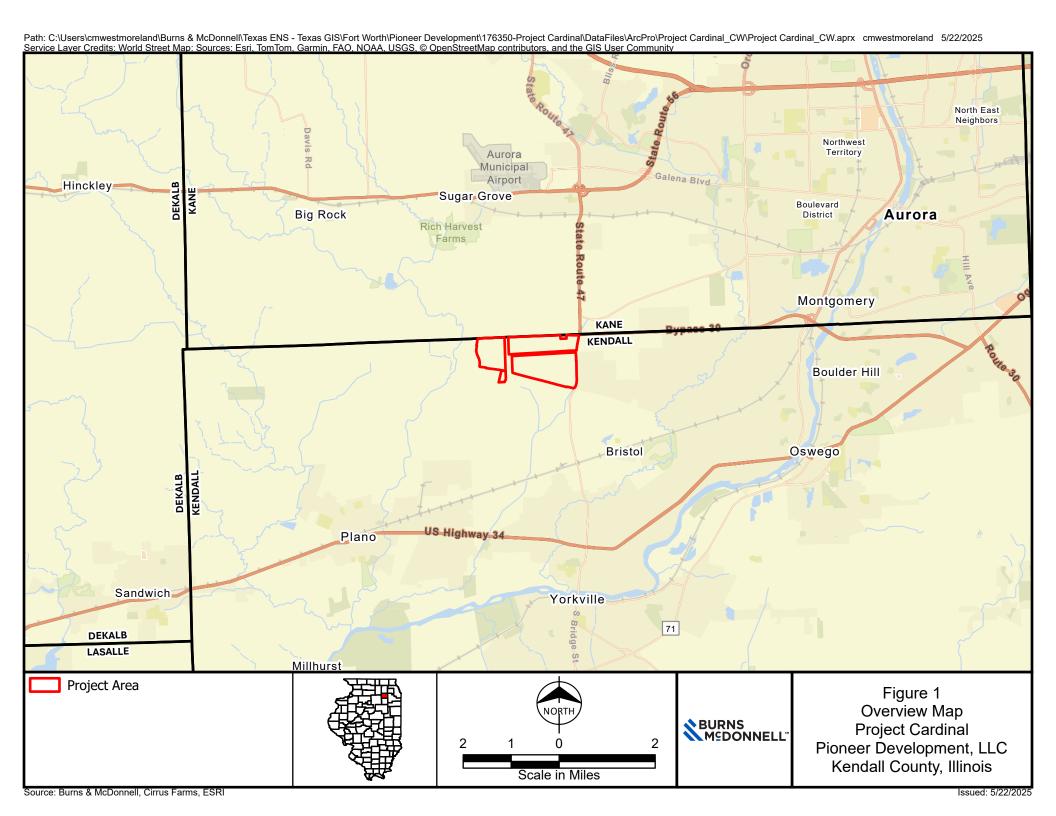
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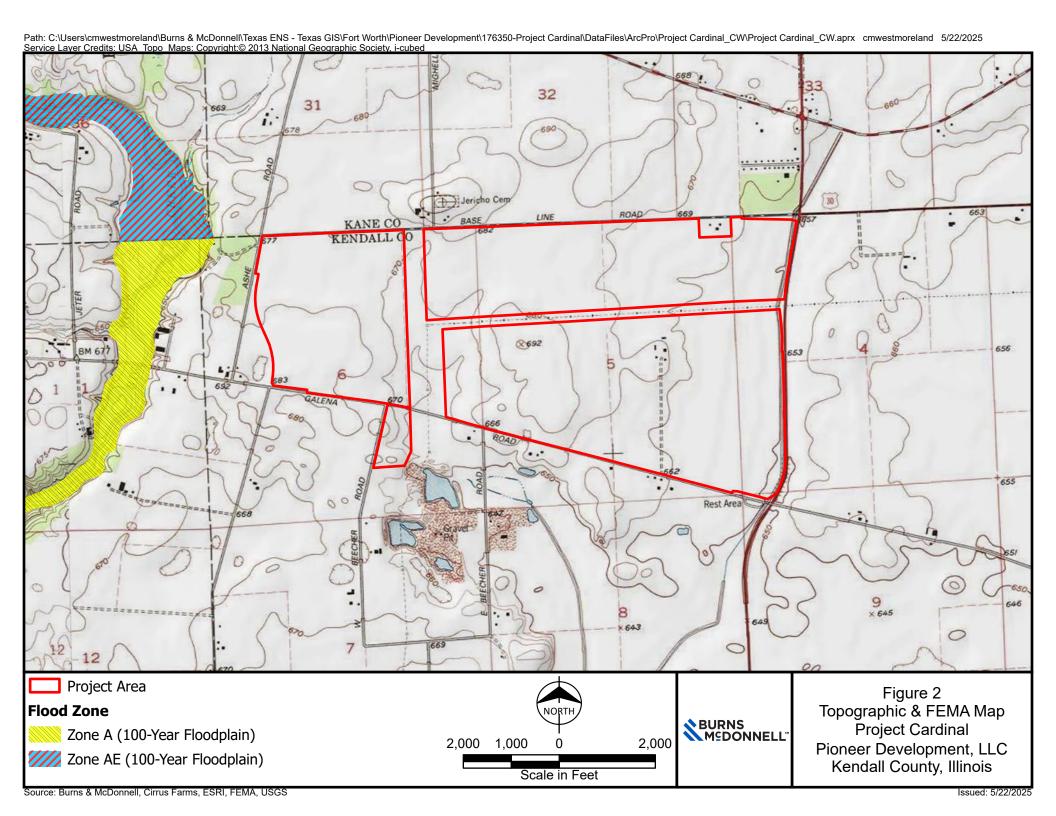


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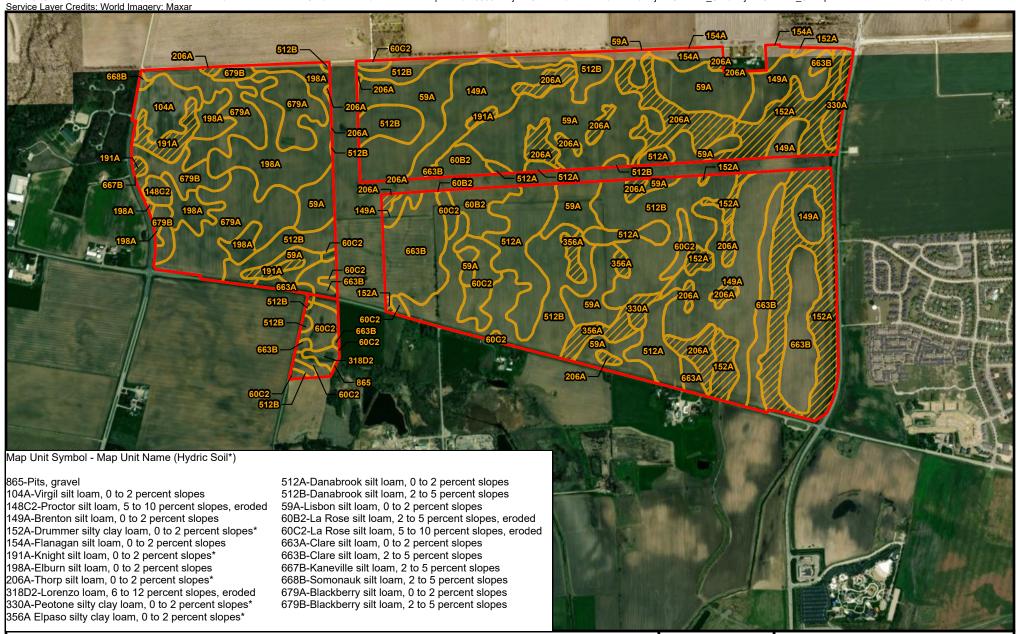








Scale in Feet



SSURGO Soil Map Unit

Project Area

Non-Hydric Soil

Hydric Soil

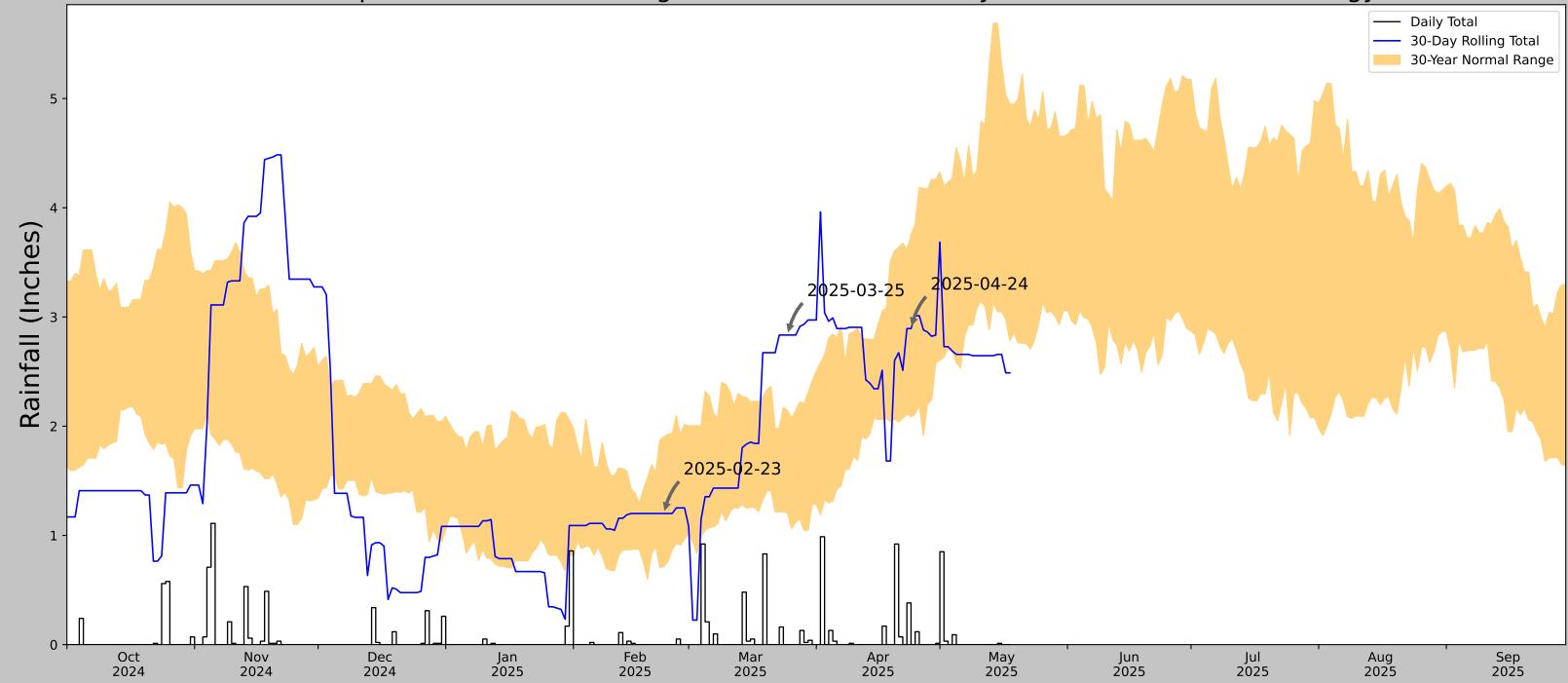
1,500 750 0 1,500

Scale in Feet

SBURNS MSDONNELL* Figure 4
Soils Map
Project Cardinal
Pioneer Development, LLC
Kendall County, Illinois

Appendix B – Wetland Determination Data Forms & Antecedent Precipitation Tool (APT)

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.717319, -88.464525
Observation Date	2025-04-24
Elevation (ft)	675.139
Drought Index (PDSI)	Mild drought
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-04-24	2.088189	3.752362	2.893701	Normal	2	3	6
2025-03-25	1.204724	2.141732	2.834646	Wet	3	2	6
2025-02-23	0.715748	1.90315	1.200787	Normal	2	1	2
Result							Normal Conditions - 14



\$ERD6

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	3.837	25.977	1.826	9432	90
SUGAR GROVE 0.7 NE	41.7762, -88.4478	714.895	1.763	13.779	0.818	29	0
SUGAR GROVE 1.4 ENE	41.7787, -88.4343	688.976	2.479	12.14	1.146	2	0
AURORA 3.1 WSW	41.7565, -88.3518	704.068	6.758	2.952	3.061	1	0
AURORA WATER	41.7803, -88.3092	674.869	8.894	26.247	4.236	1885	0
WHEATON 3 SE	41.8128, -88.0728	680.118	21.242	20.998	10.005	4	0

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal		City/Cou	nty:Kendall	County	Sampling Dat	te: 2025-04-24
Applicant/Owner: Pioneer Development, LLC				State: Illinois	Sampling Poi	nt: SP-1
Investigator(s): Burns & McDonnell (C. Most, L.	Belleville)	Section, T	ownship, Rai	nge: S06 T37N R7E		
Landform (hillside, terrace, etc.): Depression		1	Local relief (c	oncave, convex, none):	Concave	
Slope (%): 1 Lat: 41.71797959		Long:	88.476306	889	Datum: WGS 8	84
Soil Map Unit Name: 679A - Blackberry silt loar	n, 0 to 2 per	cent slopes	S	NWI classi	fication:	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes 🗸	No (If no, ex	plain in Remarks	s.)
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology_						
SUMMARY OF FINDINGS – Attach site n	_					features, etc.
Hydrophytic Vegetation Present? Yes I	No 🗸	Is the	Sampled Ar	rea		
	No O		n a Wetland?		No 🗸	
Wetland Hydrology Present? Yes 🗸 🛚 I	No				· ——	
Remarks:		•				
SP-1 is located within an area that was determine			USACE Ante	cedent Precipitation T	ool indicated t	he Survey Area
was experiencing normal conditions at the time of		i.				
VEGETATION – Use scientific names of p						
Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rksheet:	
1	70 00101	ороског.	<u> </u>	Number of Dominant		
2.				Are OBL, FACW, or F		(A)
3.				Total Number of Dom	inant Species	
4				Across All Strata:	<u>1</u>	(B)
5				Percent of Dominant	•	
0 1: (0) 1 0: (0) (0) (0)	=	Total Cover		Are OBL, FACW, or F	FAC: <u>C</u>	0.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r	_)			Duninglam on Indonesia	- ulcala4:	
1				Prevalence Index we Total % Cover o		tiply by:
2				OBL species 0	x 1 = C	tiply by:
3				FACW species 0	x2= C	-
5.				FAC species 0	x3 = C	-
·		Total Cover		FACU species 10	x 4 = 4	
Herb Stratum (Plot size: 5 ft r)				UPL species 45	x 5 = 2	225
1. Lolium arundinaceum	40	✓	UPL	Column Totals: 55		265 (B)
2. Taraxacum officinale	10		FACU	Prevalence Index	= B/A = <u>4.81</u>	
3. Daucus carota	5		UPL			
4				Hydrophytic Vegeta	tion Indicators:	
5	_			1 - Rapid Test for	r Hydrophytic Ve	getation
6				2 - Dominance To		
7				3 - Prevalence In		
8				4 - Morphologica		
9.					ks or on a separ	•
10	 55 =	Tatal Com		Problematic Hydi		` ' '
Woody Vino Stratum / Diet sine: 2.5	35 =	Total Cover		¹ Indicators of hydric s		
Woody Vine Stratum (Plot size: 30 ft r	_'		ŀ	be present, unless dis	starbed or proble	anauc.
1 2.				Hydrophytic		
		Total Cover		Vegetation Present? Yes	No	V
Remarks: (Include photo numbers here or on a sep						
Tromanto. (molado prioto numbers nere or on a sep	a.a.c 311001.)					

SOIL Sampling Point: SP-1

(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 4	10YR 2/2	100	Color (moist)		.,,,,		Silty Clay Loam	Romano
4 - 8	10YR 2/2	80					Silty Clay Loam	
4 - 8	10 TR 2/2 10 YR 5/3	20					Silty Clay Loam	
			10VD F/C					
8 - 18	10YR 2/2	20	10YR 5/6	5	<u>C</u>	<u>M</u>	Silty Clay Loam	
8 - 18	10YR 4/2	75	_				Silty Clay Loam	
Type: C=Co	oncentration, D=De	pletion, R	M=Reduced Matrix,	MS=Mas	ked San	d Grains	. ² Location: Pl	_=Pore Lining, M=Matrix.
lydric Soil	Indicators:							r Problematic Hydric Soils ³ :
Histosol			Sandy Gle					nganese Masses (F12)
	ipedon (A2)		Sandy Re					ent Material (F21) Very
Black His			Stripped N		6)			Dark Surface (F22)
	n Sulfide (A4)		Dark Surfa				Other (Ex	rplain in Remarks)
	Layers (A5)		Loamy Mu	-	, ,			
2 cm Mu	` '		Loamy Gl	•	, ,			
	Below Dark Surfac	ce (A11)	Depleted	•	•			
	rk Surface (A12)		✓ Redox Da		` '		3, ,, ,	
Iron Mon	osulfide (A18)		Depleted)		hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Redox De	pression	s (F8)			nydrology must be present,
	cky Peat or Peat (S					1	unless di	sturbed or problematic.
Restrictive I	Layer (if observed)):						
-	Gravel							
Depth (in			<u> </u>				Hydric Soil Present?	Yes <u> </u>
Depth (ir	nches): <u>18</u>						Hydric Soil Present?	Yes <u>V</u> No _
Depth (in Remarks:	nches): 18						Hydric Soil Present?	Yes <u> </u>
Depth (in Remarks:	GY drology Indicators		united: chack all that	apply)				
Depth (in Remarks: IYDROLO Wetland Hyderimary Indice	GY drology Indicators		uired; check all that		aves (RQ)		Secondary In	dicators (minimum of two require
Depth (in Remarks: YDROLO Wetland Hyden Surface	GY drology Indicators cators (minimum of Water (A1)		Water-Sta	ined Lea	, ,		Secondary In Surface S	dicators (minimum of two require
Depth (in Remarks: YDROLO Wetland Hyderimary Indicate Surface High Wa	GY drology Indicators eators (minimum of Water (A1) ter Table (A2)		Water-Sta	ined Lea auna (B1	3)		Secondary In Surface S Drainage	dicators (minimum of two require Soil Cracks (B6) Patterns (B10)
Depth (in Remarks: IYDROLO Wetland Hyde Surface V High Wa Saturation	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3)		Water-Sta Aquatic Fa True Aqua	ined Lea auna (B1 atic Plant	3) s (B14)		Secondary In Surface S Drainage Dry-Seas	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2)
Depth (in Remarks: IYDROLO Wetland Hyde Surface V High Wa Saturatio Water M:	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ined Lea auna (B1 atic Plant Sulfide (3) s (B14) Odor (C1)	Secondary In Surface S Drainage Dry-Seas Crayfish	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8)
Depth (in Remarks: IYDROLO Wetland Hyder Primary Indice Surface Verified High Water Marker Marke	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Lea auna (B1 atic Plant Sulfide (Rhizosph	3) s (B14) Odor (C1 neres on l) Living Ro	Secondary In Surface S Drainage Dry-Seas Crayfish Saturatio	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
Depth (in Remarks: YDROLO Wetland Hyden Surface High Wa Saturation Water Main Sedimen Drift Dep	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) s (B14) Odor (C1 neres on loced Iron () Living Ro (C4)	Secondary In Surface S Drainage Dry-Seas Crayfish oots (C3) Saturatio Stunted o	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Permary Indication of the Primary	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) ss (B14) Odor (C1 neres on lead Iron (ction in Ti) Living Ro (C4)	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: IYDROLO Wetland Hyde Surface Manager Manager Mater Manager Mater Manager Mater Mater Manager Mater	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	one is req	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc Surface	3) ss (B14) Odor (C1 neres on lead Iron (ction in Ties (C7)) Living Ro (C4)	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: YDROLO Wetland Hyde Surface V High Wa Saturatio Water M: Sedimen Drift Dep Algal Ma Iron Dep Inundation	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial	one is req	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) cs (B14) Odor (C1 neres on lead from (ction in Ties (C7) ca (D9)) Living Ro (C4) Iled Soils	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: YDROLO Wetland Hyden Surface High Wa Saturation Water Mark Sedimen Drift Dep Algal Mark Iron Dep Inundation Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav	one is req	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) cs (B14) Odor (C1 neres on lead from (ction in Ties (C7) ca (D9)) Living Ro (C4) Iled Soils	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: YDROLO Wetland Hyden Surface High Wa Saturation Water Mark Sedimen Drift Dep Algal Mark Iron Dep Inundation Sparsely Field Observation	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concav vations:	one is req	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc s Surface Well Dat plain in F	3) is (B14) Odor (C1 heres on led tron (bitton in Tie e (C7) ia (D9) Remarks)) Living Ro (C4) Iled Soils	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: IYDROLO Wetland Hyde Primary Indice Surface Water Many Sediment Drift Dep Algal Many Iron Dep Inundation Sparsely Field Observious	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y	one is req Imagery (se Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Irc Thin Muck B7) Gauge or (B8) Other (Ex	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc (Surface Well Dat plain in F	3) cs (B14) Odor (C1 neres on lead from (ction in Ties (C7) ca (D9)) Living Ro (C4) Illed Soil:	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (in Remarks: IYDROLO Wetland Hyde Surface V High Wa Saturatio Water M: Sedimen Drift Dep Algal Ma Iron Dep Inundation	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y Present? Y	one is required in the second	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Ird Thin Muck B7) Gauge or (B8) No	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc a Surface Well Dat Depth (i Depth (i	3) is (B14) Odor (C1 heres on led Iron (ction in Tie e (C7) ia (D9) Remarks)) Living Ro (C4) Illed Soil:	Secondary In Surface S Drainage Dry-Seas Crayfish Dots (C3) Stunted C S (C6) Geomorp	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2) tral Test (D5)
Depth (in Remarks: IYDROLO Wetland Hyde Primary Indice Surface Water Mailor Dep Algal Mailor Dep Inundation Sparsely Field Obsert Surface Water Table Saturation Primary Indices Saturation Surface Water Mailor Dep Inundation Sparsely Field Obsert Surface Water Table Saturation Primary Indices	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y Present? Y	Imagery (e Surface	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or (B8) No V	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc a Surface Well Dat Depth (i Depth (i	3) is (B14) Odor (C1 heres on led Iron (ction in Tie c (C7) is (D9) Remarks) nches): _ nches): _) Living Ro (C4) Illed Soil:	Secondary In Surface S Drainage Dry-Seas Crayfish Saturatio Stunted of FAC-Neu	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2) tral Test (D5)
Depth (in Remarks: IYDROLO Wetland Hyder Primary Indices Surface Water Mand Sediment Drift Depton Algal Mander Inon Depton Inundation Sparsely Field Observices Surface Water Table Saturation Processory Surface Control of the Sediment of the Sed	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y Present? Y Present? Y present? Y	Imagery (e Surface es es	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or (B8) No V	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat plain in F Depth (i Depth (i	3) Is (B14) Odor (C1 heres on lead Iron (ction in Tiele (C7) Is (D9) Remarks) Inches): _ nches): _ nches): _) Living Ro (C4) Illed Soil:	Secondary In Surface S Drainage Dry-Seas Crayfish Saturatio Stunted C S (C6) FAC-Neu Wetland Hydrology P	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2) tral Test (D5)
Depth (in Remarks: IYDROLO Wetland Hyder Primary Indices Surface Water Mand Sediment Drift Depton Algal Mander Inon Depton Inundation Sparsely Field Observices Surface Water Table Saturation Processory Surface Control of the Sediment of the Sed	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y Present? Y Present? Y present? Y	Imagery (e Surface es es	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck B7) Gauge or (B8) Other (Exp	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat plain in F Depth (i Depth (i	3) Is (B14) Odor (C1 heres on lead Iron (ction in Tiele (C7) Is (D9) Remarks) Inches): _ nches): _ nches): _) Living Ro (C4) Illed Soil:	Secondary In Surface S Drainage Dry-Seas Crayfish Saturatio Stunted C S (C6) FAC-Neu Wetland Hydrology P	dicators (minimum of two require Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2) tral Test (D5)

VEGETATION Continued – Use scientific names of plants.

Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diam at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, includir herbaceous vines, regardless of size, and woody pless than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height.
at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, includir herbaceous vines, regardless of size, and woody pless than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height.
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and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, includir herbaceous vines, regardless of size, and woody pless than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height.
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less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. tal Cover
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U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal		City/Co	ounty:Kendal	County	Sampling Date	2025-04-24
Applicant/Owner: Pioneer Development, LLC)	·		State: Illinois	Sampling Poin	t: SP-2
Investigator(s): Burns & McDonnell (C. Most, L.	Belleville)	Section,	Township, Ra	ange: S06 T37N R7E		' <u>'</u>
Landform (hillside, terrace, etc.): Flat			Local relief (concave, convex, none):	Linear	
Slope (%): 0 Lat: 41.71937927		Long:	-88.47635	621	Datum: WGS 8	4
Soil Map Unit Name: 679A - Blackberry silt loar	n, 0 to 2 pe	rcent slop	es	NWI classi	fication:	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes 🗸	No (If no, ex	plain in Remarks.)
Are Vegetation , Soil , or Hydrology		-		· 		
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site n	-					eatures, etc.
Hydrophytic Vegetation Present? Yes	No V	ls th	ne Sampled A	rea		
, , ,	No V		nin a Wetland		No 🗸	
Wetland Hydrology Present? Yes	No 🗸				· <u></u>	
Remarks:						
SP-2 is located within an area that was determine			e USACE Ant	ecedent Precipitation 7	Γool indicated th	e Survey Area
was experiencing normal conditions at the time o		rs.				
VEGETATION – Use scientific names of pl						
Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?		Dominance Test wo	rksheet:	
1				Number of Dominant	Species That	
2	_			Are OBL, FACW, or F	AC: <u>0</u>	(A)
3.	_			Total Number of Dom		(D)
4		-		Across All Strata:		(B)
5.		=Total Cove		Percent of Dominant Are OBL, FACW, or F	•	00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r			•	7.10 022, 17.011, 61.1		(, , ,)
1.	_′			Prevalence Index we	orksheet:	
2.				Total % Cover o	f: Multi	oly by:
3				OBL species 0	x 1 = 0	
4				FACW species 0	x 2 = 0	
5				FAC species 0	x 3 = 0	
		=Total Cove	er	FACU species 5	x 4 = 20	
Herb Stratum (Plot size: 5 ft r)		,	LIBI	UPL species 60	x 5 = 30	
1. Lolium arundinaceum	50		UPL	Column Totals: 65	`	20 (B)
2. Daucus carota	<u>10</u> 5		FACU	Prevalence Index	= B/A = <u>4.92</u>	
3. Solanum carolinense			FACO	Usalranbutia Vanata	tion Indicators	
4.				Hydrophytic Vegeta		estation
5. 6.		-		1 - Rapid Test for 2 - Dominance To		jetation
7	-	-		3 - Prevalence In		
8.				4 - Morphological		ovide supporting
0		-			ks or on a separa	
10.	- ——			Problematic Hydr		•
	65	=Total Cove		¹ Indicators of hydric s		` ' '
Woody Vine Stratum (Plot size: 30 ft r	_)			be present, unless dis		
1	_			Hydrophytic		
2				Vegetation		,
		=Total Cove	er	Present? Yes	No_ <u></u>	<u></u>
Remarks: (Include photo numbers here or on a sep	arate sheet.)					

SOIL Sampling Point: SP-2

Inches Color (moist) % Color (moist) % Type Loc* Texture Remarks		Redox Features			
Type: C-Concentration, D-Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	0 - 20 10YR 3/2 100	oist) % Ty	pe ¹ Loc ²	Texture	Remarks
Indicators for Problematic Hydric Soils*: Histosoil (A1)	<u> </u>			Silty Clay Loam	
ydric Soil indicators: - Histosoil (A1)	-				
ydric Soil indicators: - Histosoil (A1)					
ydric Soil indicators: - Histosoil (A1)					
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ydric Soll Indicators: - Histoscol (A1)	<u> </u>				
ydric Soll Indicators: - Histoscol (A1)	Type: C=Concentration D=Depletion RM=Reduced (Matrix MS=Masked	Sand Grains	² I ocation: PI =	Pore Lining M=Matrix
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Black Histic (A3)	` '		- ',	-	
					` '
			'F1)		iam m r temame,
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lron Monosulfide (A18)			6)		
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Type:					
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VEGETATION Continued – Use scientific names of plants.

∕EGETATION Continued – Us	se scientific names of	plants.		Sampling Point: SP-2
Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
i				Tree – Woody plants 3 in. (7.6 cm) or more in diamete
				at breast height (DBH), regardless of height.
. <u> </u>				
. <u> </u>				Sapling/Shrub – Woody plants less than 3 in. DBH
0				and greater than 3.28 ft (1 m) tall.
1				Herb – All herbaceous (non-woody) plants, including
2				herbaceous vines, regardless of size, and woody plant
3				less than 3.28 ft tall.
		=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum				height.
·				
· ·				
·				
0.				
1				
2				
3.				
		=Total Cover		
<u>lerb Stratum</u>				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
<u></u>				
2.				
	65	=Total Cover		
<u>Voody Vine Stratum</u>				
i				
. ·				
· ·				
		=Total Cover		
Remarks: (Include photo numbers her	e or on a separate sneet.)			

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal	City/County:Kendal	l County	Sampling Date:	2025-04-24
Applicant/Owner: Pioneer Development, LLC		State: Illinois	Sampling Point:	SP-3
Investigator(s): Burns & McDonnell (C. Most, L. Belleville)	Section, Township, R	ange: S05 T37N R7		
Landform (hillside, terrace, etc.): Depression		(concave, convex, none)		
Slope (%): 1 Lat: 41.7198719	Long: -88.45449	9415	Datum: WGS 84	
Soil Map Unit Name: 59A - Lisbon silt loam, 0 to 2 percent		NWI class		
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes ✔	No (If no, ex		
Are Vegetation, Soil, or Hydrologysignificantly		Circumstances" present		0
Are Vegetation , Soil , or Hydrology naturally pro		xplain any answers in Re		
SUMMARY OF FINDINGS – Attach site map showi			,	itures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled A	\rea		
Hydric Soil Present? Yes ✓ No	within a Wetland		No	
Wetland Hydrology Present? Yes 🗸 No				
Remarks:				
SP-3 is located within palustrine emergent farmed (PEMf) we		Antecedent Precipitati	on Tool indicated	the Survey
Area was experiencing normal conditions at the time of field s	surveys.			
VEGETATION – Use scientific names of plants.	Danibard Indicator	Ī		
Absolute Tree Stratum (Plot size: 30 ft r) % Cover	Dominant Indicator Species? Status	Dominance Test wo	orksheet:	
1.		Number of Dominant	Species That	
2		Are OBL, FACW, or I	FAC: 0	(A)
3		Total Number of Don		(5)
4		Across All Strata:	0	(B)
	=Total Cover	Percent of Dominant Are OBL, FACW, or I	•	0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)		, 022, . ,		(, , ,)
1.		Prevalence Index w	orksheet:	
2.		Total % Cover o	f: Multiply	/ by:
3		OBL species 0	x 1 = 0	
4		FACW species 0	x 2 = 0	
5		FAC species 0	x 3 = 0	
	=Total Cover	FACU species 0	x 4 = 0	
Herb Stratum (Plot size: 5 ft r)		UPL species 0	x 5 = 0	
1		Column Totals: 0	(A) <u>0</u>	(B)
2		Prevalence Index	= B/A = 0	
3		Ukadan abadin Manata	diam la dia ataua.	
4		Hydrophytic Vegeta		
5		2 - Dominance T	r Hydrophytic Vege	lation
6		✓ 3 - Prevalence Ir		
7			ldex is ≤3.0 Il Adaptations¹ (Prov	ido supportina
8			ks or on a separate	
10.			rophytic Vegetation	•
	=Total Cover	¹ Indicators of hydric s	. , .	` ' '
Woody Vine Stratum (Plot size: 30 ft r)		be present, unless di		
1		Hydrophytic		
2	=Total Cover	Vegetation	~	
		Present? Yes	No	

SOIL Sampling Point: SP-3

Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 2/2	100	2 2.0. (71:-		Silty Clay Loam	
8 - 20	10YR 2/2	60	10YR 5/6	10	С	M	Silty Clay Loam	
8 - 20	10YR 4/2	30	10111 0/0	· · · ·			Silty Clay Loam	
0 - 20	1011 4/2						Silty Clay Loain	
-								
Type: C=C	oncentration D=De	nletion R	M=Reduced Matrix,	MS=Mas	sked San	d Grains	² l ocation: F	PL=Pore Lining, M=Matrix.
-	Indicators:	piotion, 1 ti	W reduced Matrix,	WO WA	onou oun	a Oranio		or Problematic Hydric Soils ³ :
Histosol			Sandy Gle	eved Ma	trix (S4)			anganese Masses (F12)
	oipedon (A2)		Sandy Re	-				rent Material (F21) Very
Black Hi			Stripped N					Dark Surface (F22)
	n Sulfide (A4)		Dark Surf					Explain in Remarks)
Stratified	Layers (A5)		Loamy Mu	ıcky Min	eral (F1)		·	
2 cm Mu	ck (A10)		Loamy Gl	eyed Ma	trix (F2)			
Depleted	d Below Dark Surfac	e (A11)	Depleted	Matrix (F	3)			
Thick Da	ark Surface (A12)		✓ Redox Da	rk Surfa	ce (F6)		2	
Iron Mor	nosulfide (A18)		Depleted	Dark Su	face (F7)		of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Redox De	pression	ıs (F8)			hydrology must be present,
5 cm Mu	cky Peat or Peat (S	3)					unless o	disturbed or problematic.
Restrictive	Layer (if observed):						
Type:								
Type: Depth (ir	nches):						Hydric Soil Present?	Yes <u> </u>
Type: _ Depth (ir Remarks:							Hydric Soil Present?	Yes <u>v</u> No
Type:	OGY						Hydric Soil Present?	Yes_V No_
Type:	OGY drology Indicators		using displaced call that	annlu)				
Type:	OGY drology Indicators cators (minimum of		uired; check all that		aves (RQ)		Secondary I	ndicators (minimum of two require
Type:	DGY drology Indicators cators (minimum of Water (A1)		Water-Sta	ined Lea	, ,		Secondary I	ndicators (minimum of two require Soil Cracks (B6)
Type:	drology Indicators cators (minimum of Water (A1) ter Table (A2)		Water-Sta	ined Lea auna (B1	l3)		Secondary I Surface Drainag	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa V Saturation	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)		Water-Sta Aquatic Fa	ined Lea auna (B1 atic Plan	(3) ts (B14)		Secondary I Surface Drainag Dry-Sea	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2)
Type: Depth (in Remarks: IYDROLC Wetland Hy Primary India Surface High Water Mater	drology Indicators cators (minimum of Water (A1) ter Table (A2)		Water-Sta	ined Lea auna (B1 atic Plan Sulfide	l3) ts (B14) Odor (C1)	Secondary I Surface Drainag Dry-Sea Crayfish	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Water M Sedimer	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	nined Lea auna (B1 atic Plan Sulfide Rhizospl	ts (B14) Odor (C1 neres on) Living Ro	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3)	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa V Saturatio Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized	iined Lea auna (B1 atic Plan Sulfide Rhizosph of Redu	ts (B14) Odor (C1 neres on ced Iron) Living Ro (C4)	Secondary I Surface Drainag Dry-Sea Crayfish oots (C3) Secondary I Surface Surface Stunted	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa ✓ Saturatio Water M Sedimer Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-Sta Aquatic F: True Aqua Hydrogen Oxidized I	nined Lea auna (Br atic Plan Sulfide Rhizosph of Redu	ts (B14) Odor (C1 neres on ced Iron o) Living Ro (C4)	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa V Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)	one is reg	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro Thin Much	nined Lea auna (Br atic Plan Sulfide Rhizosph of Redu on Reduc Surface	ts (B14) Odor (C1 neres on ced Iron oction in Ti) Living Ro (C4)	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Type: Depth (in Remarks: TYDROLO Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is reg	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Ia Presence Recent Iro Thin Mucl B7) Gauge or	uined Lea auna (B´ Sulfide Shizosph of Redu on Reduc Surface Well Da	ts (B14) Odor (C1 neres on ced Iron o ction in Ti e (C7) ta (D9)) Living Ro (C4) Iled Soils	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa V Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial	one is reg	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Ia Presence Recent Iro Thin Mucl B7) Gauge or	uined Lea auna (B´ Sulfide Shizosph of Redu on Reduc Surface Well Da	ts (B14) Odor (C1 neres on ced Iron o ction in Ti e (C7) ta (D9)) Living Ro (C4) Iled Soils	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa V Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations:	one is reg	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Ia Presence Recent Iro Thin Mucl B7) Gauge or	ined Lea auna (B' atic Plan Sulfide Rhizosph of Redu on Redu c Surface Well Da plain in F	ts (B14) Odor (C1 neres on ced Iron o ction in Ti e (C7) ta (D9)) Living Ro (C4) Iled Soils	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Type: Depth (in Remarks: IYDROLC Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Water Water Table	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial v Vegetated Concav vations: er Present? Y	Imagery (e Surface es	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Mucl B7) Gauge or (B8) No No	ined Lea auna (B' atic Plan Sulfide Rhizosph of Reduct Surface Well Da plain in F	ts (B14) Odor (C1 neres on ced Iron oction in Tie e (C7) ta (D9) Remarks) inches):) Living Ro (C4) Illed Soil:	Secondary I Surface Drainag Dry-Sea Crayfish Saturati Stunted s (C6) FAC-Ne	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial v Vegetated Concav vations: er Present? Present? Y resent?	one is req Imagery (e Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized In Presence Recent Ind Thin Much B7) Gauge or (B8) Other (Ex	ined Lea auna (B' atic Plan Sulfide Rhizosph of Reduct Surface Well Da plain in F	ts (B14) Odor (C1 neres on ced Iron oction in Ti e (C7) ta (D9) Remarks)) Living Ro (C4) Illed Soil:	Secondary I Surface Drainag Dry-Sea Crayfish Dots (C3) Saturati Stunted s (C6) V Geomo	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y	Imagery (e Surface es es v	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Mucl Gauge or (B8) Other (Ex No No No No	ined Lea auna (B' atic Plan Sulfide Rhizosph of Redu on Redu c Surface Well Da plain in F Depth (Depth (ts (B14) Odor (C1 neres on ced Iron oction in Ti e (C7) ta (D9) Remarks) inches):) Living Ro (C4) Illed Soil:	Secondary I Surface Drainag Dry-Sea Crayfish Saturati Stunted S (C6) FAC-Ne	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y	Imagery (e Surface es es v	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Mucl B7) Gauge or (B8) No No	ined Lea auna (B' atic Plan Sulfide Rhizosph of Redu on Redu c Surface Well Da plain in F Depth (Depth (ts (B14) Odor (C1 neres on ced Iron oction in Ti e (C7) ta (D9) Remarks) inches):) Living Ro (C4) Illed Soil:	Secondary I Surface Drainag Dry-Sea Crayfish Saturati Stunted S (C6) FAC-Ne	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
Type: Depth (in Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P Includes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y	Imagery (e Surface es es v	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Mucl Gauge or (B8) Other (Ex No No No No	ined Lea auna (B' atic Plan Sulfide Rhizosph of Redu on Redu c Surface Well Da plain in F Depth (Depth (ts (B14) Odor (C1 neres on ced Iron oction in Ti e (C7) ta (D9) Remarks) inches):) Living Ro (C4) Illed Soil:	Secondary I Surface Drainag Dry-Sea Crayfish Saturati Stunted S (C6) FAC-Ne	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)

VEGETATION Continued – Use scientific names of plants.

Time Stratum		Absolute	Dominant	Indicator	
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, including herbaceous wines, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine - All woody vines greater than 3.28 ft in height.	Tree Stratum	% Cover	Species?	Status	Definitions of Vegetation Strata:
## at breast height (DBH), regardless of height. ## at breast height (DBH), regardless of height. ## Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft in mile. ## Sapling/Shrub Stratum ## Sapling/Shrub - Woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Sapling/Shrub - Woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Sapling/Shrub - Woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vines greater than 3.28 ft in height. ## Woody Vine - All woody vin	6.				Tree – Woody plants 3 in (7.6 cm) or more in diameter
8.	7.				
Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft in a did greater than 3.28 ft in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 3.28 ft in height. Herb - All herbaceous vines, regardless of size, and woody plants less than 3.28 ft in height. Woody Vine - All woody vines greater than 3.28 ft in h	8				
10.					
11.	4.0				and greater than 3.28 ft (1 m) tall.
12.					Herb – All herbaceous (non-woody) plants, including
13.	12.				herbaceous vines, regardless of size, and woody plants
Total Cover Herb Stratum Herb Stratum					less than 3.28 ft tall.
Sapling/Shrub Stratum height. 6. ————————————————————————————————————			Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
6.	Sapling/Shrub Stratum				
7. 8. 9. 10. 11. 12. 13. —=Total Cover Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. —=Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.					
8. 9. 10. 10. 11. 12. 13.					
9.	8				
10.	^				
11.					
12. 13=Total Cover Herb Stratum 11. 12					
Total Cover Herb Stratum	12				
Herb Stratum	12.				
Herb Stratum 11.	13.		-Total Cayor		
11	Llauk Chuah um		- Total Covel		
12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	·				
13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	11.				
14	12.				
15					
16					
17. 18. 19. 20. 21. 22. —Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.					
18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	16				
19. 20. 21. 22. —=Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	17				
19. 20. 21. 22. —=Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	18				
21	19				
22	20				
=Total Cover	21				
Woody Vine Stratum 3. 4. 5. 6. 7.	22				
3		=	=Total Cover		
4	Woody Vine Stratum				
5.	3				
6	4				
7.	5.				
	6.				
=Total Cover	7.				
		-	=Total Cover		

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

No vegetation present, sample plot is within an agricultural field. Vegetation is assumed to be hydrophytic due to prevalence of other wetland indicators.

Sampling Point: SP-3

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal	City/County:Kendall (County	Sampling Date:	2025-04-24
Applicant/Owner: Pioneer Development, LLC		State: Illinois	Sampling Point:	SP-4
Investigator(s): Burns & McDonnell (C. Most, L. Belleville)	Section, Township, Ran	ge: S05 T37N R7E		
Landform (hillside, terrace, etc.): Depression	Local relief (co	oncave, convex, none):	Concave	
Slope (%): 1 Lat: 41.71997513	Long: -88.454493	17	Datum: WGS 84	
Soil Map Unit Name: 59A - Lisbon silt loam, 0 to 2 percent slo	pes	NWI classif	fication:	
Are climatic / hydrologic conditions on the site typical for this time of year	ear? Yes 🗸	No (If no, exp	olain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly dist		rcumstances" present?	Yes ✔ No)
Are Vegetation , Soil , or Hydrology naturally problem		lain any answers in Re		
SUMMARY OF FINDINGS – Attach site map showing		cations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes No V Hydric Soil Present? Yes No V Wetland Hydrology Present? Yes No V	Is the Sampled Are within a Wetland?	ea Yes	No 🗸	
Remarks:		T 1: 1: 1: 1: 0		
SP-4 is located within an upland adjacent to W-1. The USACE An normal conditions at the time of field surveys.	tecedent Precipitation	Tool indicated the Sui	rvey Area was exp	eriencing
VEGETATION – Use scientific names of plants.				
Absolute D	Oominant Indicator			
\ <u> </u>	Species? Status	Dominance Test wor	rksheet:	
1		Number of Dominant Are OBL, FACW, or F	'	(A)
3. 4.		Total Number of Dom Across All Strata:	inant Species 0	(B)
5	otal Cover	Percent of Dominant S Are OBL, FACW, or F	•	O (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)	_			
1		Prevalence Index wo		
2		Total % Cover of	<u></u>	by:
3		OBL species 0	x 1 = 0 x 2 = 0	
5.		FAC species 0	$x_3 = 0$	
	otal Cover	FACU species 0	$x = \frac{1}{0}$	
Herb Stratum (Plot size: 5 ft r)		UPL species 0	x 5 = 0	
1		Column Totals: 0	(A) 0	(B)
2.		Prevalence Index	= B/A = 0	
3				
4		Hydrophytic Vegetat		
5			Hydrophytic Veget	ation
6		2 - Dominance Te		
7		3 - Prevalence Inc	dex is ≤3.0° Adaptations¹ (Prov	ida aunnartina
8			s or on a separate	
10.			ophytic Vegetation ¹	
Woody Vine Stratum (Plot size: 30 ft r)	otal Cover	¹ Indicators of hydric so	oil and wetland hyd	rology must
1		Hydrophytic	•	
2	otal Cover	Vegetation	No 🗸	
Remarks: (Include photo numbers here or on a separate sheet.)				_
No vegetation present, sample plot is within an agric	ultural field.			

SOIL Sampling Point: SP-4

Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 10	10YR 2/1	100	2 2.2. (71 -		Silty Clay Loam	· ioniano	
10 - 20	10YR 4/3	60					Silty Clay Loam		
10 - 20	10YR 2/1	40					Silty Clay Loam		
10 - 20	1011 2/1	_ 40					Silty Clay Loain		
-									
Type: C=C	oncentration, D=De	pletion. RM	=Reduced Matrix.	MS=Mas	ked Sand	d Grains	. ² Location: I	PL=Pore Lining, M=Mat	ix.
Hydric Soil		,	,					for Problematic Hydric	
Histosol	(A1)		Sandy G	eyed Mat	trix (S4)			anganese Masses (F12	
	pipedon (A2)		Sandy Re	-				rent Material (F21) Very	
Black Hi			Stripped	Matrix (S	6)		Shallow	Dark Surface (F22)	
Hydroge	n Sulfide (A4)		Dark Sur	face (S7)			Other (I	Explain in Remarks)	
Stratified	l Layers (A5)		Loamy M	ucky Min	eral (F1)				
2 cm Mu	ck (A10)		Loamy G	leyed Ma	trix (F2)				
Depleted	d Below Dark Surfa	ce (A11)	Depleted	Matrix (F	3)				
Thick Da	ark Surface (A12)		Redox D	ark Surfac	ce (F6)		2		
Iron Mon	nosulfide (A18)		Depleted	Dark Sur	face (F7))		of hydrophytic vegetatio	
Sandy M	lucky Mineral (S1)		Redox D	epression	ıs (F8)			hydrology must be pre	
5 cm Mu	cky Peat or Peat (S	33)					unless	disturbed or problemation).
Restrictive	Layer (if observed):							
	,								
Type:									
Type: Depth (ir			_				Hydric Soil Present?	Yes	No 🗸
Type: _ Depth (ir Remarks:	nches):						Hydric Soil Present?	Yes	No ∠
Type:	onches):						Hydric Soil Present?	Yes	No_ <u></u>
Type:	OGY drology Indicators								
Type:	OGY drology Indicators				oves (BQ)		Secondary	Indicators (minimum of	
Type:	DGY drology Indicators cators (minimum of		Water-St	ained Lea	, ,		Secondary Surface	Indicators (minimum of the Soil Cracks (B6)	
Type:	DGY drology Indicators cators (minimum of Water (A1) tter Table (A2)		Water-St Aquatic F	ained Lea auna (B1	3)		Secondary Surface Drainaç	Indicators (minimum of second control of second	
Type:	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3)		Water-St Aquatic F True Aqu	ained Lea auna (B1 atic Plant	3) ts (B14)		Secondary Surface Drainag	Indicators (minimum of second control of second	
Type:	DGY drology Indicators cators (minimum of Water (A1) tter Table (A2)		Water-St Aquatic F	ained Lea auna (B1 atic Plant Sulfide (3) ts (B14) Odor (C1))	Secondary Surface Drainag Dry-Sea Crayfisl	Indicators (minimum of second control of second	wo required
Type: Depth (ir Remarks: HYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-St Aquatic F True Aqu Hydroger	ained Lea auna (B1 atic Plant Sulfide (Rhizosph	3) ts (B14) Odor (C1) neres on I) Living Ro	Secondary Surface Drainag Dry-Sea Crayfisl Doots (C3) Saturat	Indicators (minimum of the Patterns (B10) ason Water Table (C2) in Burrows (C8)	wo required
Type: Depth (ir Remarks: HYDROLO Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators eators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) tt Deposits (B2)		Water-St Aquatic F True Aqu Hydroger Oxidized	ained Lea auna (B1 atic Plant Sulfide (Rhizosph	3) is (B14) Odor (C1) neres on l ced Iron () Living Ro (C4)	Secondary Surface Drainage Dry-See Crayfisl Sots (C3) Saturat Stunted	Indicators (minimum of incident of second control of the control o	wo required
Type:	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-St Aquatic F True Aqu Hydroger Oxidized Presence	ained Lea fauna (B1 atic Plant n Sulfide (Rhizosph e of Reduc on Reduc	3) ts (B14) Odor (C1) neres on L ced Iron () Living Ro (C4)	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of a Soil Cracks (B6) ge Patterns (B10) gason Water Table (C2) a Burrows (C8) gion Visible on Aerial Image of Stressed Plants (D1	wo required
Type: Depth (ir Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	drology Indicators (minimum of Water (A1) (ter Table (A2) on (A3) (arks (B1) (b) (B2) (b) (B3) (c) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	one is requi	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir	ained Lea Fauna (B1 atic Plant n Sulfide (Rhizosph of Reduc on Reduc	3) ts (B14) Odor (C1) neres on L ced Iron (ction in Tile e (C7)) Living Ro (C4)	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of the Soil Cracks (B6) pe Patterns (B10) pe Son Water Table (C2) pe Burrows (C8) pe Official Image of Stressed Plants (D1) propic Position (D2)	wo required
Type:	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requi	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of	ained Lea Fauna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) ta (D9)) Living Ro (C4) Iled Soil	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of the Soil Cracks (B6) pe Patterns (B10) pe Son Water Table (C2) pe Burrows (C8) pe Official Image of Stressed Plants (D1) propic Position (D2)	wo required
Type:	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav	one is requi	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge or	ained Lea Fauna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) ta (D9)) Living Ro (C4) Iled Soil	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of the Soil Cracks (B6) pe Patterns (B10) pe Son Water Table (C2) pe Burrows (C8) pe Official Image of Stressed Plants (D1) propic Position (D2)	wo required
Type: Depth (in percentage) Primary Indiages Surfaces High Water M Sedimen Drift Depton Algal Malron Depton Inundation Sparsely Field Obser	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial v Vegetated Concav vations:	one is requi	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of Other (Ex	ained Lea fauna (B1 atic Plant n Sulfide (Rhizosph e of Reduc on Reduc k Surface Well Dat	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) ta (D9)) Living Ro (C4) Iled Soil	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of the Soil Cracks (B6) pe Patterns (B10) pe Son Water Table (C2) pe Burrows (C8) pe Official Image of Stressed Plants (D1) propic Position (D2)	wo required
Type: Depth (in page 1) Depth (in page 2) Depth	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial vegetated Concav vations: er Present?	one is requi	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of B8) Other (Ex	ained Lea fauna (B1 atic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface Well Dat cplain in F	a) Its (B14) Odor (C1) Ineres on L Ited Iron (Ited Iron) Living Re (C4) Illed Soil	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of the Soil Cracks (B6) pe Patterns (B10) pe Son Water Table (C2) pe Burrows (C8) pe Official Image of Stressed Plants (D1) propic Position (D2)	wo required
Type: Depth (ir Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P	drology Indicators cators (minimum of Water (A1) Iter Table (A2) In (A3) Iter Table (A2) In (A3) Iter Table (B2) In (B4) In Deposits (B3) Iter Trust (B4) Iter	one is requi Imagery (B' re Surface (l	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of Other (Ex	ained Lea fauna (B1 atic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface Well Dat cplain in F	3) Is (B14) Odor (C1) Ineres on L Ced Iron (Cetion in Tile (C7) Ita (D9) Remarks)) Living Re (C4) Illed Soil	Secondary Surface Drainag Dry-Sea Crayfisl Dots (C3) Saturat Stunted S (C6)	Indicators (minimum of a Soil Cracks (B6) ge Patterns (B10) gason Water Table (C2) in Burrows (C8) gion Visible on Aerial Imal or Stressed Plants (D1) geutral Test (D5)	wo required
Type: Depth (ir Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations: er Present? Present? Y Present? Y present? Y poillary fringe)	Imagery (B re Surface (I res res	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of B8) Other (Ex No No V No V	ained Lea Fauna (B1 atic Plant in Sulfide (Rhizosph e of Reduc on Reduc k Surface Well Dat k plain in F Depth (i Depth (i	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) Ita (D9) Remarks) Inches): Inches):) Living Ro (C4) Illed Soil:	Secondary Surface Drainage Dry-See Crayfisl Saturat Stunted S (C6) FAC-Ne	Indicators (minimum of a Soil Cracks (B6) ge Patterns (B10) gason Water Table (C2) in Burrows (C8) gion Visible on Aerial Imal or Stressed Plants (D1) geutral Test (D5)	wo required
Type: Depth (ir Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) Iter Table (A2) In (A3) Iter Table (A2) In (A3) Iter Table (B2) In (B4) In Deposits (B3) Iter Trust (B4) Iter	Imagery (B re Surface (I res res	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of B8) Other (Ex No No V No V	ained Lea Fauna (B1 atic Plant in Sulfide (Rhizosph e of Reduc on Reduc k Surface Well Dat k plain in F Depth (i Depth (i	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) Ita (D9) Remarks) Inches): Inches):) Living Ro (C4) Illed Soil:	Secondary Surface Drainage Dry-See Crayfisl Saturat Stunted S (C6) FAC-Ne	Indicators (minimum of a Soil Cracks (B6) ge Patterns (B10) gason Water Table (C2) in Burrows (C8) gion Visible on Aerial Imal or Stressed Plants (D1) geutral Test (D5)	wo required
Type: Depth (ir Remarks: IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial of Vegetated Concav vations: er Present? Present? Y Present? Y present? Y poillary fringe)	Imagery (B re Surface (I res res	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc 7) Gauge of B8) Other (Ex No No V No V	ained Lea Fauna (B1 atic Plant in Sulfide (Rhizosph e of Reduc on Reduc k Surface Well Dat k plain in F Depth (i Depth (i	3) Is (B14) Odor (C1) neres on L ced Iron (ction in Til e (C7) Ita (D9) Remarks) Inches): Inches):) Living Ro (C4) Illed Soil:	Secondary Surface Drainage Dry-See Crayfisl Saturat Stunted S (C6) FAC-Ne	Indicators (minimum of a Soil Cracks (B6) ge Patterns (B10) gason Water Table (C2) in Burrows (C8) gion Visible on Aerial Imal or Stressed Plants (D1) geutral Test (D5)	wo required

Time Stratum		Absolute	Dominant	Indicator	
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Horb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine - All woody vines greater than 3.28 ft in height.	Tree Stratum	% Cover	Species?	Status	Definitions of Vegetation Strata:
### Stratum Company C	6				Tree – Woody plants 3 in (7.6 cm) or more in diameter
8.	7				
10	8.				
11.	9.				
11.	10				and greater than 3.28 ft (1 m) tall.
12.					Herb – All herbaceous (non-woody) plants, including
Sapling/Shrub Stratum	12				
Flotal Cover Woody Vine - All woody vines greater than 3.28 ft in height.					less than 3.28 ft tall.
Section Sect			=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
7.	Sapling/Shrub Stratum				height.
7. 8. 9. 10. 11. 12. 13. —Total Cover Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. —Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	6.				
8. 9. 10. 11. 12. 13.	7				
9. 10. 11. 12. 13. =Total Cover Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.					
10. 11. 12. 13. =Total Cover Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	^				
11. 12. 13. =Total Cover Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.					
12. 13=Total Cover Herb Stratum 11					
Total Cover Herb Stratum					
Herb Stratum	13.				
Herb Stratum 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.			=Total Cover		
11	Herb Stratum				
12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.					
13.	12				
14	13				
15	14				
16.	15				
17. 18. 19. 20. 21. 22. —————————————————————————————	16				
18. 19. 20. 21. 22. =Total Cover Woody Vine Stratum 3. 4. 5. 6. 7.	17				
19	18				
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21					
22					
=Total Cover					
Woody Vine Stratum 3. 4. 5. 6. 7.	22.		-Tatal Causan		
3	Manada Vina Obraham		- rotal Cover		
4	·				
5.					
6					
7.					
=Total Cover	<i>1</i>				
			= Fotal Cover		

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

No vegetation present, sample plot is within an agricultural field.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal	City/County:Kendall	County	Sampling Date:	2025-04-24
Applicant/Owner: Pioneer Development, LLC		State: Illinois	Sampling Point:	SP-5
Investigator(s): Burns & McDonnell (C. Most, L. Belleville)	Section, Township, Ra	ange: S05 T37N R7E		
Landform (hillside, terrace, etc.): Flat	Local relief (concave, convex, none):	Linear	
Slope (%): 0 Lat: 41.70695962	Long: -88.45256	564	Datum: WGS 84	
Soil Map Unit Name: 152A - Drummer silty clay loam, 0 to	2 percent slopes	NWI classi	fication:	
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes	No (If no, ex	plain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly	disturbed? Are "Normal (Circumstances" present?	Yes 🗸 No	כ
Are Vegetation, Soil, or Hydrologynaturally pro		xplain any answers in Re		
SUMMARY OF FINDINGS – Attach site map showi		ocations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes No _✓ Hydric Soil Present? Yes No _✓ Wetland Hydrology Present? Yes ✓ No	Is the Sampled A within a Wetland		No	
Remarks:				
SP-5 is located within an area that was determined not to be was experiencing normal conditions at the time of field surve		ecedent Precipitation 7	Fool indicated the	Survey Area
VEGETATION – Use scientific names of plants.				
Absolute	Dominant Indicator			
Tree Stratum (Plot size: 30 ft r) % Cover	Species? Status	Dominance Test wo		
1		Number of Dominant Are OBL, FACW, or F		(A)
3	. — —	Total Number of Dom Across All Strata:	ninant Species 0	(B)
5.	=Total Cover	Percent of Dominant Are OBL, FACW, or F	•	0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)	•			
1		Prevalence Index we		
2	·	Total % Cover of		by:
3	·	OBL species 0 FACW species 0	x 1 = 0 x 2 = 0	
5.	·	FAC species 0	$x_3 = 0$	
J 0.	=Total Cover	FACU species 0	x 4 = 0	
Herb Stratum (Plot size: 5 ft r)		UPL species 0	x 5 = 0	
1		Column Totals: 0	(A) 0	(B)
2.		Prevalence Index	= B/A = 0	`
3				
4		Hydrophytic Vegeta		
5	· ——		r Hydrophytic Veget	ation
6	·	2 - Dominance To		
7		3 - Prevalence In		
8			l Adaptations ¹ (Prov ks or on a separate	
10.	<u> </u>		ophytic Vegetation ¹	
	=Total Cover	¹ Indicators of hydric s	oil and wetland hyd	lrology must
1			TELEGO OF PRODUCTION	
2	=Total Cover	Hydrophytic Vegetation Present? Yes	No 🗸	
		11030111: 165		<u>-</u>
Remarks: (Include photo numbers here or on a separate sheet.) No vegetation present, sample plot is within an ac				
ino vegetation present, sample plous within an ag	incultural field.			

SOIL Sampling Point: SP-5

Depth	Matrix		epth needed to doc Redo	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 16	10YR 2/1	100					Silty Clay Loam	
16 - 20	10YR 2/1	95	10YR 5/6	5	С	M	Silty Clay Loam	
20 - 26	10YR 2/1	85	10YR 5/6	15	С	М	Silty Clay Loam	
		. —						
	-	. —						-
		. ——						
			-					
¹ Type: C=Co	oncentration, D=Dep	oletion, RN	M=Reduced Matrix, I	MS=Mas	ked San	d Grains	. ² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil								rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		Iron-	Manganese Masses (F12)
Histic Ep	pipedon (A2)		Sandy Re	dox (S5)				Parent Material (F21) Very
Black His	stic (A3)		Stripped M	latrix (Se	6)		Shall	ow Dark Surface (F22)
Hydroge	n Sulfide (A4)		Dark Surfa	ace (S7)			Othe	r (Explain in Remarks)
Stratified	Layers (A5)		Loamy Mu	icky Mine	eral (F1)			
2 cm Mu	ck (A10)		Loamy Gle	eyed Mat	rix (F2)			
Depleted	l Below Dark Surfac	e (A11)	Depleted I	Matrix (F	3)			
Thick Da	rk Surface (A12)	-	Redox Da	rk Surfac	e (F6)			
Iron Mon	osulfide (A18)		Depleted I	Dark Sur	face (F7))	³ Indicator	s of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Redox De	pression	s (F8)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S	3)	<u> </u>				unles	s disturbed or problematic.
Restrictive I	Layer (if observed)	:						
	Compacted clay							
							Hydric Soil Present	? Yes No 🗸
Type:							Hydric Soil Present	?? Yes No_ <u>v</u>
Type: <u>(</u> Depth (ir							Hydric Soil Present	?? Yes No_ <u>v</u>
Type: <u>(</u> Depth (ir	nches): <u>26</u>						Hydric Soil Present	? Yes No <u>V</u>
Type: <u>(</u> Depth (ir Remarks:	nches): <u>26</u>						Hydric Soil Present	?? Yes No_ <u>v</u>
Type: 0 Depth (ir Remarks: HYDROLO Wetland Hyd	nches): <u>26</u>		uired; check all that	apply)				Yes No V
Type:	nches): <u>26</u>		uired; check all that		ves (B9)		Secondal	
Type:	nches): 26 OGY drology Indicators: cators (minimum of c			ined Lea	, ,		Secondal Surfa	ry Indicators (minimum of two required
Type:	pGY drology Indicators: cators (minimum of country (A1) ter Table (A2)		Water-Sta	ined Lea auna (B1	3) ` ´		Secondal Surfa Drair	y Indicators (minimum of two required tice Soil Cracks (B6)
Type:	pGY drology Indicators: cators (minimum of country (A1) ter Table (A2)		Water-Sta Aquatic Fa	ined Lea auna (B1 atic Plant	3) s (B14)		Secondal Surfa Drair	ry Indicators (minimum of two required lice Soil Cracks (B6) lage Patterns (B10)
Type:	orches): 26 OGY drology Indicators: cators (minimum of of Water (A1) ter Table (A2) on (A3)		Water-Sta Aquatic Fa True Aqua	ined Lea auna (B1 atic Plant Sulfide (3) s (B14) Odor (C1)	Secondal Surfa Drair Dry-5 Cray	y Indicators (minimum of two required ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2)
Type:	orches): 26 OGY drology Indicators: cators (minimum of of of other (A1)) ter Table (A2) on (A3) arks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ined Lea auna (B1 atic Plant Sulfide (Rhizosph	3) s (B14) Odor (C1 eres on) Living R	Secondal Surfa Drair Dry-S Crayi pots (C3)Satu	ry Indicators (minimum of two required nce Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8)
Type:	drology Indicators: eators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) s (B14) Odor (C1 eres on lead Iron () Living R (C4)	Secondar Surfa Drair Dry-S Crayr cots (C3) Satur	ry Indicators (minimum of two required loce Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
Type:	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) s (B14) Odor (C1 eres on led Iron (tion in Ti) Living R (C4)	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required lice Soil Cracks (B6) lage Patterns (B10) lage Patterns (B10) lage Mater Table (C2) last Burrows (C8) last on Aerial Imagery (C9) lad or Stressed Plants (D1)
Type:	drology Indicators: cators (minimum of owater (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4)	one is requ	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living R (C4) illed Soil	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required to Soil Cracks (B6) tage Patterns (B10) to Season Water Table (C2) fish Burrows (C8) tration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) through the control of two required to the control of the control of the control of two required to the co
Type:	drology Indicators: cators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5)	one is requ	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living R (C4) illed Soil	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required to Soil Cracks (B6) tage Patterns (B10) to Season Water Table (C2) fish Burrows (C8) tration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) through the control of two required to the control of the control of the control of two required to the co
Type:	drology Indicators: cators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial I	one is requ	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or	ined Lea auna (B1 sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living R (C4) illed Soil	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required to Soil Cracks (B6) tage Patterns (B10) to Season Water Table (C2) fish Burrows (C8) tration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) through the control of two required to the control of the control of the control of two required to the co
Type:	drology Indicators: cators (minimum of of water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial I	one is requ Imagery (E e Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or (B8) Other (Exp	ined Lea auna (B1 sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Ddor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living R (C4) illed Soil	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required to Soil Cracks (B6) tage Patterns (B10) to Season Water Table (C2) fish Burrows (C8) tration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) through the control of two required to the control of the control of the control of two required to the co
Type:	orches): 26 OGY drology Indicators: cators (minimum of orches) Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B3) arks (B3) arks (B4) osits (B5) on Visible on Aerial I are Vegetated Concave vations: er Present? Yes	Imagery (I e Surface eses	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or (B8) Other (Exp	ined Lea auna (B1 stic Plant Sulfide (Rhizosph of Reduc in Reduc is Surface Well Dat blain in R	3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches):nches): _) Living R (C4) illed Soil	Secondal Surfa Drair Dry-S Cray Saturi Stunt Geor FAC-	ry Indicators (minimum of two required lice Soil Cracks (B6) liage Patterns (B10) Season Water Table (C2) fish Burrows (C8) liadion Visible on Aerial Imagery (C9) lied or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5)
Type:	orches): 26 OGY drology Indicators: cators (minimum of orches) Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) arks (B3) arks (B3) arks (B4) osits (B5) on Visible on Aerial I are Vegetated Concave vations: er Present? Yes	lmagery (E e Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck B7) Gauge or (B8) Other (Exp	ined Lea auna (B1 stic Plant Sulfide (Rhizosph of Reduc in Reduc is Surface Well Dat blain in R	3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches):nches): _) Living R (C4) illed Soil	Secondal Surfa Drair Dry-5 Cray Dots (C3) Satural Stuntal	ry Indicators (minimum of two required lice Soil Cracks (B6) liage Patterns (B10) Season Water Table (C2) fish Burrows (C8) liadion Visible on Aerial Imagery (C9) lied or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5)
Type: Q Depth (ir Remarks: HYDROLO Wetland Hyde Surface Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Water Water Table Saturation P (includes cap	drology Indicators: eators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial I of Vegetated Concave vations: er Present? Ye present? Ye present? Ye poillary fringe)	Imagery (Iee Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or (B8) Other (Exp No No No	ined Lea auna (B1 stic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat blain in R Depth (ii Depth (ii	s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) emches): _ emches): _) Living R (C4) illed Soil	Secondar Surfa Drair Dry-S Crayr Satur Stunt S (C6) FAC-	ry Indicators (minimum of two required lice Soil Cracks (B6) liage Patterns (B10) Season Water Table (C2) fish Burrows (C8) liadion Visible on Aerial Imagery (C9) lied or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5)
Type: Q Depth (ir Remarks: HYDROLO Wetland Hyde Surface Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Water Water Table Saturation P (includes cap	drology Indicators: eators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial I of Vegetated Concave vations: er Present? Ye present? Ye present? Ye poillary fringe)	Imagery (Iee Surface	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Exp	ined Lea auna (B1 stic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat blain in R Depth (ii Depth (ii	s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) emches): _ emches): _) Living R (C4) illed Soil	Secondar Surfa Drair Dry-S Crayr Satur Stunt S (C6) FAC-	ry Indicators (minimum of two required cace Soil Cracks (B6) (B6) (B6) (B6) (B6) (B6) (B6) (B6)
Type: Q Depth (ir Remarks: HYDROLO Wetland Hyde Surface Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Water Water Table Saturation P (includes cap	drology Indicators: eators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial I of Vegetated Concave vations: er Present? Ye present? Ye present? Ye poillary fringe)	Imagery (Iee Surface	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or (B8) Other (Exp No No No	ined Lea auna (B1 stic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat blain in R Depth (ii Depth (ii	s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) emches): _ emches): _) Living R (C4) illed Soil	Secondar Surfa Drair Dry-S Crayr Satur Stunt S (C6) FAC-	ry Indicators (minimum of two required cace Soil Cracks (B6) (B6) (B6) (B6) (B6) (B6) (B6) (B6)
Type:	drology Indicators: eators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial I ovegetated Concave vations: er Present? Present? Ye resent? Ye oillary fringe) corded Data (stream	Imagery (I e Surface es es r gauge, n	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or (B8) Other (Exp No No No	ined Lea auna (B1 tic Plant Sulfide (Rhizosph of Reduc in Reduc is Surface Well Dat blain in R Depth (ii Depth (ii Depth (ii	s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) emches): _ emches): _) Living R (C4) illed Soil	Secondar Surfa Drair Dry-S Crayr Satur Stunt S (C6) FAC-	ry Indicators (minimum of two required cace Soil Cracks (B6) (B6) (B6) (B6) (B6) (B6) (B6) (B6)

	Absolute	Dominant	Indicator	
Tree Stratum	% Cover	Species?	Status	Definitions of Vegetation Strata:
6.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				
9				Sapling/Shrub – Woody plants less than 3 in. DBH
10				and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, including
12.				herbaceous vines, regardless of size, and woody plants
13.				less than 3.28 ft tall.
		=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum				height.
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
10.		=Total Cover		
Herb Stratum		Total Gover		
11.				
12.				
13.				
14				
15 16.				
17.				
18				
19.				
20.				
21.				
22				
		=Total Cover		
Woody Vine Stratum				
3				
4				
5				
6				
7				
	=	=Total Cover		

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

No vegetation present, sample plot is within an agricultural field.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal	City/County:Kendal	l County	Sampling Date:	2025-04-24
Applicant/Owner: Pioneer Development, LLC		State: Illinois	Sampling Point:	SP-6
Investigator(s): Burns & McDonnell (C. Most, L. Belleville) Section, Township, Ra	ange: S05 T37N R7E	Ξ	
Landform (hillside, terrace, etc.): Depression	Local relief (concave, convex, none):	Concave	
Slope (%): 1 Lat: 41.70670667	Long: -88.45158	353	Datum: WGS 84	
Soil Map Unit Name: 149A - Brenton silt loam, 0 to 2 per		NWI classi		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	No (If no, ex	plain in Remarks.)	
Are Vegetation, Soil, or Hydrologysignificantl				0
Are Vegetation, Soil, or Hydrology naturally p		xplain any answers in Re	<u> </u>	
SUMMARY OF FINDINGS – Attach site map show			·	itures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled A	rea		
Hydric Soil Present? Yes V No	within a Wetland	? Yes <u> </u>	No	
Wetland Hydrology Present? Yes No				
Remarks:				
SP-6 is located within PEMf W-2. The USACE Antecedent Protections of field surveys	recipitation Tool indicated	the Survey Area was e	xperiencing norma	al conditions
at the time of field surveys.				
VEGETATION – Use scientific names of plants.	D : 1 F :	1		
Absolute Tree Stratum (Plot size: 30 ft r) % Cove		Dominance Test wo	orksheet:	
1.		Number of Dominant	Species That	
2.		Are OBL, FACW, or F		(A)
3		Total Number of Dom		
4		Across All Strata:	0	(B)
5	=Total Cover	Percent of Dominant	•	O (A/D)
Sapling/Shrub Stratum (Plot size: 15 ft r)		Are OBL, FACW, or F	-AC. <u>0.01</u>	0 (A/B)
1		Prevalence Index w	orksheet:	
2.		Total % Cover o		y by:
3.		OBL species 0	x 1 = 0	
4.		FACW species 0	x 2 = 0	
5.		FAC species 0	x 3 = 0	
	=Total Cover	FACU species 0	x 4 = 0	
Herb Stratum (Plot size: 5 ft r)		UPL species 0	x 5 = 0	
1		Column Totals: 0	(A) <u>0</u>	(B)
2		Prevalence Index	= B/A = 0	
3				
4		Hydrophytic Vegeta		
5			r Hydrophytic Veget	ation
6		2 - Dominance T		
7		3 - Prevalence In	idex is ≤3.0° il Adaptations¹ (Prov	
8		· · ·	rks or on a separate	
9			rophytic Vegetation	*
10	=Total Cover	1 	. , .	` ' '
Woody Vine Stratum (Plot size: 30 ft r)		¹ Indicators of hydric s be present, unless dis		
1				
2.		Hydrophytic Vegetation		
	=Total Cover	Present? Yes	No	
Remarks: (Include photo numbers here or on a separate sheet	<u> </u>	1		_
No vegetation present, sample plot is located within an agricultural field. Vegeta:	,	lue to prevalence of other wet	tland indicators	

SOIL Sampling Point: SP-6

Profile Desc	ription: (Describe	to the de	pth needed to doc	ument t	he indic	ator or o	confirm the absence of	of indicators.)
Depth	Matrix		Redo	x Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 6	10YR 2/1	100					Silty Clay Loam	
6 - 20	10YR 2/1	60	10YR 5/6	15	С	М	Silty Clay Loam	
6 - 20			10YR 5/2	25	D	М	Silty Clay Loam	
-								
	-							
1- 0.0							2,	DI D. III MANA
Hydric Soil	oncentration, D=Dep	letion, RN	/I=Reduced Matrix,	MS=Mas	sked San	d Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
— Histosol			Sandy Gle	wod Mat	triv (91)			Manganese Masses (F12)
	ipedon (A2)		Sandy Re					Parent Material (F21) Very
Black His			Stripped N					ow Dark Surface (F22)
	n Sulfide (A4)		Dark Surfa	٠,			Other	(Explain in Remarks)
	Layers (A5)		Loamy Mu					
2 cm Mu	` '	- (0.44)	Loamy Gl	-				
	Below Dark Surface	e (A11)	Depleted					
	rk Surface (A12)		<u>✓</u> Redox Da		, ,		³ Indicator	s of hydrophytic vegetation and
	osulfide (A18)		Depleted)		nd hydrology must be present,
_	ucky Mineral (S1)		Redox De	pression	ıs (F8)			s disturbed or problematic.
	cky Peat or Peat (S3 _ayer (if observed):					I	41100	o distance of problematic.
Type:	Layer (ii Observed).							
Depth (in	ichee).						Hydric Soil Present	? Yes ✔ No
							Tryunc 3011 Fresent	165 100
Remarks:								
HYDROLO	GY							
-	drology Indicators:	na ia rasu	ired, sheet all that	annlu)			Cacandar	u Indicatora (minimum of two required)
	cators (minimum of c Water (A1)	ne is requ	uired; check all that Water-Sta					y Indicators (minimum of two required) ce Soil Cracks (B6)
	` '				` '	,		,
Saturatio	ter Table (A2)		Aquatic Fa					age Patterns (B10) Season Water Table (C2)
	,		Hydrogen		, ,	`		ish Burrows (C8)
	arks (B1) t Deposits (B2)		Oxidized F		•	•	<u> </u>	ation Visible on Aerial Imagery (C9)
	osits (B3)		Presence			_		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			. ,		norphic Position (D2)
	osits (B5)		Thin Muck			illeu 30li	` ′	Neutral Test (D5)
	on Visible on Aerial I	magany (E			, ,			Neutral Test (D3)
	Vegetated Concave				, ,	١		
Field Observ		Curiaco	(BO)Other (EX	Jiani iii i	terriarito		T	
Surface Water			No 🗸	Donth (i	inches):			
Water Table		eses	No 🗸		inches):			
Saturation P			No 🗸		inches):		Wetland Hydrolog	ıy Present? Yes ✓ No
(includes cap			NO	Deptii (i			vvetiana nyurolog	y riesent: Tes No
	corded Data (stream	dalide n	nonitoring well aeris	al photos	nreviou	ıs insner	tions) if available:	
Describe Ne	cordod Data (stredili	gaage, II	ionioning well, aelle	a priotos	, proviou	.oopec	navaliable.	
Remarks:								
1								

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
<u> </u>				Definitions of Vegetation Strata.
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/Shrub – Woody plants less than 3 in. DBH
				and greater than 3.28 ft (1 m) tall.
10 11.				Herb – All herbaceous (non-woody) plants, including
12.				herbaceous vines, regardless of size, and woody plants
13.				less than 3.28 ft tall.
		Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum				height.
6				
7.				
8.				
^				
10.				
11.				
12.				
13.				
		Total Cover		
Herb Stratum				
11				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19				
20				
21				
22.				
	=	Total Cover		
Woody Vine Stratum				
3.				
4				
5				
6.				
7				
	=	Total Cover		

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

No vegetation present, sample plot is located within an agricultural field. Vegetation is assumed to be hydrophytic due to prevalence of other wetland indicators.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Project Cardinal	City/County:Kendall	County	Sampling Date:	2025-04-24
Applicant/Owner: Pioneer Development, LLC		State: Illinois	Sampling Point:	SP-7
Investigator(s): Burns & McDonnell (C. Most, L. Belleville)	Section, Township, Ra	nge: S05 T37N R7E		
Landform (hillside, terrace, etc.): Flat	_ Local relief (c	concave, convex, none):	Linear	
Slope (%): 0 Lat: 41.70668964	Long: -88.451667	'61	Datum: WGS 84	
Soil Map Unit Name: 152A - Drummer silty clay loam, 0 to 2	percent slopes	NWI classi	fication:	
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes ✔	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly dis)
Are Vegetation , Soil , or Hydrology naturally proble			·	
SUMMARY OF FINDINGS – Attach site map showing				tures, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	Is the Sampled Ar		No 🗸	
Wetland Hydrology Present? Yes No				
Remarks: SP-7 is located within an upland adjacent to W-2. The USACE All normal conditions at the time of field surveys.	ntecedent Precipitation	Tool indicated the Su	rvey Area was exp	eriencing
VEGETATION – Use scientific names of plants. Absolute	Dominant Indicator			
	Species? Status	Dominance Test wo	rksheet:	
1		Number of Dominant Are OBL, FACW, or F	'	(A)
3		Total Number of Dom Across All Strata:	inant Species 0	(B)
	otal Cover	Percent of Dominant Are OBL, FACW, or F		(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r) 1.		Prevalence Index wo	arkehoot:	
2.		Total % Cover of		bv.
3.		OBL species 0	$\frac{x}{1} = 0$	<u></u>
4.		FACW species 0	x 2 = 0	
5.		FAC species 0	x 3 = 0	
=1	otal Cover	FACU species 0	x 4 = 0	
Herb Stratum (Plot size: 5 ft r)		UPL species 0	x 5 = 0	
1		Column Totals: 0	(A) <u>0</u>	(B)
2		Prevalence Index	= B/A = <u>0</u>	
3				
4		Hydrophytic Vegeta		
5			Hydrophytic Veget	ation
6		2 - Dominance Te		
7		3 - Prevalence In		
8			Adaptations ¹ (Prov s or on a separate	
40			ophytic Vegetation ¹	
	otal Cover	¹ Indicators of hydric s be present, unless dis	oil and wetland hyd	rology must
1		•		
2	otal Cover	Hydrophytic Vegetation Present? Yes	No 🗸	
	- C.C CO - C.			
Remarks: (Include photo numbers here or on a separate sheet.) No vegetation present, sample plot is within an agri-	cultural field.			

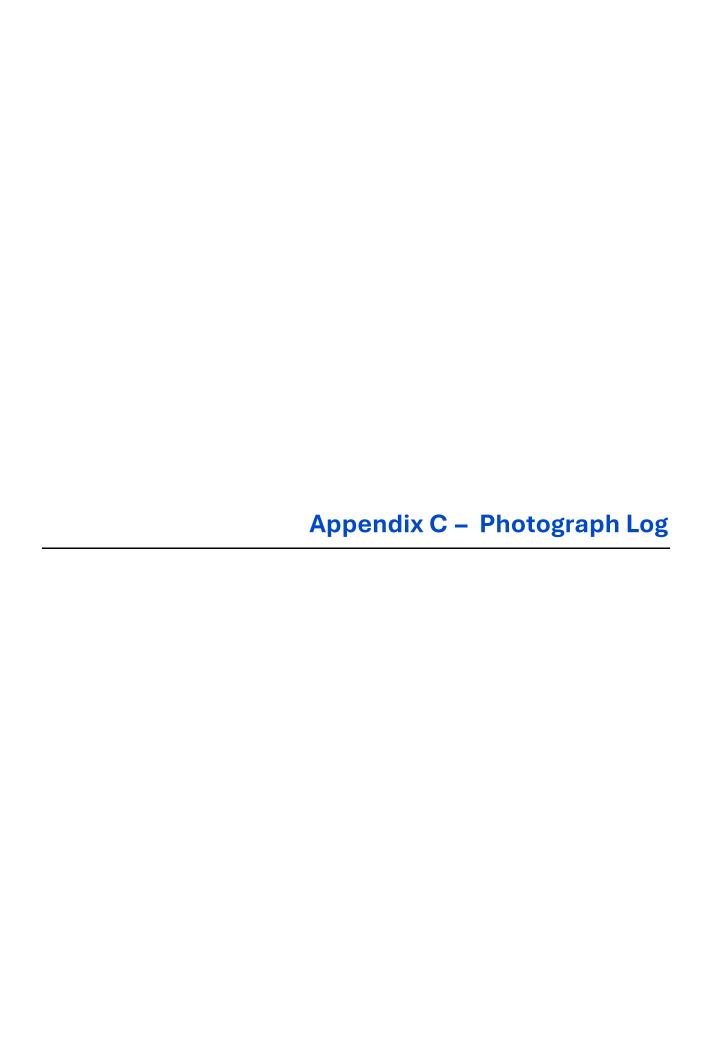
SOIL Sampling Point: SP-7

	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 2/1	100					. <u></u>	
18 - 20	10YR 2/1	90	10YR 4/2	8	D	М	Silty Clay Loam	
18 - 20			10YR 5/4	2	С	М	Silty Clay Loam	
					-			
				-				
				- —				
Гуре: C=Cor	ncentration, D=De	pletion, R	M=Reduced Matrix,	MS=Ma	sked San	d Grains	. ² Location: PL	.=Pore Lining, M=Matrix.
ydric Soil In	ndicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A	A1)		Sandy Gl	-			Iron-Man	ganese Masses (F12)
Histic Epip	pedon (A2)		Sandy Re	dox (S5)			nt Material (F21) Very
Black Hist	ic (A3)		Stripped I	Matrix (S	66)		Shallow [Dark Surface (F22)
	Sulfide (A4)		Dark Surf				Other (Ex	plain in Remarks)
	Layers (A5)		Loamy Mi	-				
2 cm Mucl			Loamy Gl	•	٠, ,			
	Below Dark Surfac	:e (А11)	Depleted					
	k Surface (A12)		Redox Da		` '		3Indicators of	hydrophytic vegetation and
	sulfide (A18)		Depleted)		ydrology must be present,
=	icky Mineral (S1)	.0)	Redox De	pression	ns (F8)			sturbed or problematic.
	ky Peat or Peat (S					1	uniess dis	sturbed or problematic.
Kestrictive La	ayer (if observed):						
Type:	hes).						Hydric Soil Present?	Vos No
	ches):		<u> </u>				Hydric Soil Present?	Yes No_
Type: Depth (inc	ches):						Hydric Soil Present?	YesNo_
Type: Depth (inc							Hydric Soil Present?	Yes No_
Type:							Hydric Soil Present?	Yes No_
Type: Depth (income semarks: YDROLOG Vetland Hydr	GY rology Indicators		uired; check all that	apply)				Yes No _
Type: Depth (incomments: YDROLOG Vetland Hydr	GY rology Indicators ators (minimum of		uired; check all that		aves (B9))	Secondary Inc	
Type:	GY rology Indicators ators (minimum of		•	ained Lea	, ,)	Secondary Inc Surface S	dicators (minimum of two requ
Type:	rology Indicators ators (minimum of /ater (A1) er Table (A2) n (A3)		Water-Sta	ained Lea auna (B	13))	Secondary Ind Surface S Drainage	dicators (minimum of two requ
Type: Depth (income lemarks: Primary Indication Surface Welland Water Main Water Main	rology Indicators ators (minimum of /ater (A1) er Table (A2) n (A3) rks (B1)		Water-Sta Aquatic F True Aqua Hydrogen	ained Lea auna (B´ atic Plan Sulfide	13) ts (B14) Odor (C1)	Secondary Inc Surface S Drainage Dry-Seas Crayfish I	dicators (minimum of two requ Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8)
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	Absolute	Dominant	Indicator	
<u>Tree Stratum</u>	% Cover	Species?	Status	Definitions of Vegetation Strata:
6.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8.				
9.				Sapling/Shrub – Woody plants less than 3 in. DBH
10.				and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, including
12.				herbaceous vines, regardless of size, and woody plants
13.				less than 3.28 ft tall.
		Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum		Total Cover		height.
7.				
8.				
9.				
10.				
11				
12.				
13.				
	=	Total Cover		
Herb Stratum				
11				
12.				
13.				
14.				
15				
16.				
16				
17.				
18.				
19.				
20.				
21.				
22.				
	=	Total Cover		
Woody Vine Stratum				
3.				
4				
5.				
6.				
7.				
		Total Cover		
				l .

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

No vegetation present, sample plot is within an agricultural field.





Photograph 1: View of Sample Plot (SP)-3 located within Palustrine Emergent, farmed (PEMf) Wetland (W)-1, facing south.



Photograph 2: View of SP-4 located within an upland area adjacent to W-1, facing east.





Photograph 3: View of SP-6 located within PEMf W-2, facing north.



Photograph 4: View of SP-7 located within an upland area adjacent to W-2, facing north.





Photograph 5: Representative view of Stream (S)-1 within the Survey Area, facing south towards Galena Road.



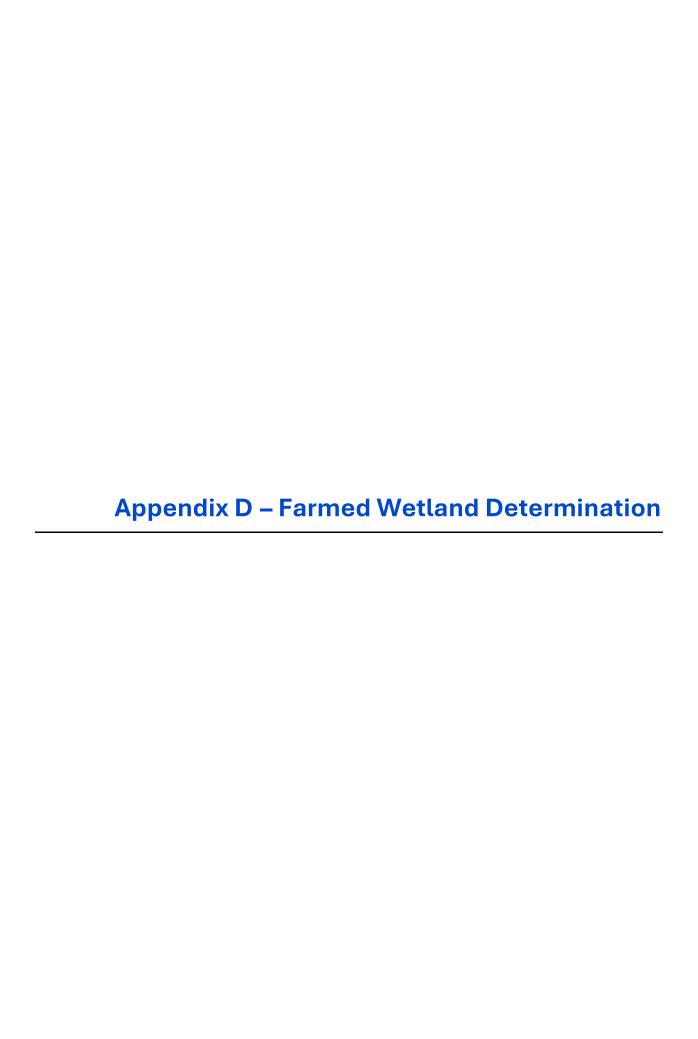
Photograph 6: Representative view of a drainage feature to S-1 within the Survey Area, facing west.





Photograph 7: Representative view of culvert that facilitates water movement to S-1 within the Survey Area, facing east.





FWD Summary

					WD Camma,	,						
							Number of Signatures			Meets FWD		
FWD Signature	WET			NORMAL/DRY			Present on	Mapped NWI (Y/N)	Hydric Soil	Requirements	Signature Type	Comments
							Normal/Dry Year			(Y/N)		
							Images					
Year	2013	2015	2017	2018	2023	2024						•
Aerial Source	Google Earth	1										
Aerial Date	5/23/2013	9/20/2015	9/9/2017	7/11/2018	6/19/2023	5/3/2024	1					
APT Tool ¹	WET	NORMAL	NORMAL	NORMAL	DRY	NORMAL						
1	Х	Х	Х	Х	Х	Х	5	N	N	Y	SP-1	Upland vegetation
2	Х	Х	Х	Х	Х	Х	5	N	N	Υ	SP-2	Upland vegetation, no hydric soil
3		Х	Х				2	N	Partial	Υ	NA	Absence of Geomorphic Position
4	Х	Х	Х	Х	Х	Х	5	N	Partial	Υ	NA	Elevated property line, upland vegetation
5	Х	Х	Х	Х	Х	Х	5	N	N	Υ	NA	Absence of Geomorphic Position, upland vegetation
6	Х	Х	X	Х	Х		4	N	N	Υ	NA	Absence of Geomorphic Position
7	Х	Х	X	Х	Х		4	N	N	Υ	NA	Absence of Geomorphic Position
8	Х	Х	X	X	Х	Х	5	N	N	Υ	NA	Absence of Geomorphic Position, upland vegetation
9	Х						0	N	Partial	N	NA	Absence of Geomorphic Position
10	Х	Х	Х		Х	Х	4	N	Partial	Υ	W-1	
11	Х	Х			Х	Х	3	N	Υ	Υ	NA	Absence of Geomorphic Position, upland vegetation
12	Х	Х	Х	Х	Х	Х	5	N	Partial	Υ	NA	Elevated property line, upland vegetation
13	Х						0	N	N	N	NA	Absence of Geomorphic Position
14	Х	Х			Х	Х	3	N	N	Υ	NA	Absence of Geomorphic Position
15	X	Х				Х	2	N	Partial	N	NA	Absence of Geomorphic Position
16	Х	Х		Х			2	N	Partial	N	NA	Absence of Geomorphic Position
17	Х	Х	Х	Х	Х	Х	5	N	Partial	Υ	NA	Field Access entrance

 $^{^{1}} Antecedent \, Precipitation \, Tool \, (APT) \, https://www.epa.gov/nwpr/antecedent-precipitation-tool-apt$













