Wetland Delineation Report

Lincolnway Industrial Rail

Clinton County, Iowa

Prepared for: Clinton Regional Development Corporation

Prepared by:

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Olsson Project Number: 015-2757

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Acronyms and Abbreviations

asl	. above sea level
NHD	.National Hydrography Dataset
NRCS	.Natural Resources Conservation Service
NWI	. National Wetlands Inventory
Olsson	. Olsson Associates
PEMA	. Palustrine Emergent Temporarily Flooded
PEMC	. Palustrine Emergent Seasonally Flooded
USACE	. United States Army Corps of Engineers
USFWS	. United States Fish and Wildlife Service
USGS	.United States Geological Survey



Table of Contents

Section 1 - Introduction	1
Summary	1
Section 2 - Wetland/Water Resources Delineation Methods	1
Review of Existing Resources	.1
Delineation Methods	2
Section 3 - Delineation Results	3
Section 4 – Discussion	.4

List of Tables

Table 1. Clinton County Soils	.2
Table 2. Delineated Wetlands	. 3
Table 3. Other Water Resources	. 4

List of Appendices

Appendix A – Figures Appendix B – USACE Data Sheets Appendix C – Photo Log



Section 1 - Introduction

Summary

Olsson was retained by Clinton Regional Development Corporation to complete a wetland evaluation for a proposed future economic development located in Sections 22, 23, 24, Township 81 North, Range 5 East, Clinton County, Iowa. The Study Area for the wetland evaluation is depicted on Figures 1 and 2 of Appendix A.

The Study Area, at the time of the site visit, consisted of existing agricultural fields, industrial site with rail line, and unnamed tributaries to Rock Creek. The majority of unnamed tributaries to Rock Creek consisted of channels in railway ditches and agricultural fields that drain to Rock Creek (Figures 2 and 4, Appendix A).

Section 2 - Wetland/Water Resources Delineation Methods

The Study Area for the wetland evaluation was based on boundary recommendations provided to Olsson by Clinton Regional Development Corporation. The site is approximately 450 acres in size.

The following methods were used to complete the delineation and jurisdictional evaluation of the Study Area.

Review of Existing Resources

This evaluation consisted of a review of existing data that included aerial photography, United States Geological Survey topographic map, National Hydrography Dataset, U.S. Fish and Wildlife Service National Wetlands Inventory, and the Clinton County Soil Survey.

USGS Topographic Map

The USGS topographic map (Figure 1) indicates the relief is relatively flat across the project site with elevations ranging from 668 feet to 650 feet above sea level (asl) throughout the project. The USGS topographic map does not depict any wetlands or waters within the project Study Area.

National Hydrography Dataset

The NHD map (Figure 3) depicts Rock Creek intersecting the southwest corner of the Study Area. No other waters are depicted within the Study Area.



Soil Survey

According to the soil survey for Clinton County (Figure 3), the soils on the site are listed in Table 1:

133 – Colo Silty clay loam*	377B – Dinsdale silt loam
175B – Dickinson fine sandy loam	404 – Thorp silt loam*
184 – Klinger silt Ioam*	412D – Sogn Ioam
214C – Rockton Ioam	760 – Ansgar silt Ioam*
217B – Ripon silt Ioam	918 – Garwin silty clay loam*
284B – Flagler sandy loam	919 – Muscatine silt loam*
350 – Waukegan silt loam	920B – Tama silt Ioam
350B – Waukegan silt loam	1152 – Marshan clay loam*
351 – Atterberry silt loam	INT – Intermittent water

Table 1: Clinton County Soils

*The soils that are **bolded** above are listed as hydric on the 2014 National Hydric Soils List from the Natural Resources Conservation Service (NRCS) website.

National Wetlands Inventory

The National Wetlands Inventory map does not depict any wetlands or waters within the project area (Figure 3).

Delineation Methods

The delineation was completed by Madison Leonard and Amy Cherko of Olsson Associates (Olsson) on November 10, 2015 and again on December 15, 2015. The evaluation was completed by closely inspecting potential wetland areas while walking the site. All conditions described in the following sections represent conditions at the time of the field investigation.

Routine Wetland Determination Data Forms (Midwest Region – Version 2.0) were completed for areas with potential wetlands. These forms document the presence (or absence) of hydrophytic vegetation, hydric soils, and wetland hydrology according to guidelines established by the United State Army Corps of Engineers (USACE) and described in the Regional Supplement to the USACE Wetlands Delineation Manual: Midwest Region (Version 2.0 2010), the USACE Wetlands Delineation Manual (1987).

Sample points and photograph locations were transferred to digital aerial photography (Figures 4A-4K). These figures are included in Appendix A. Corps data sheets are included in Appendix B. Photographs documenting site conditions for each area are included in Appendix C.



Section 3 - Delineation Results

Wetlands were identified in ditches, agricultural fields, and abutting stream channels. Olsson identified a total of 9 Palustrine Emergent Temporarily Flooded (PEMA) wetlands, 1 Palustrine Emergent Seasonally Flooded (PEMC) wetland, and 3 PEMA/C Wetlands. The total acreage of wetlands is approximately 4.63 acres (Figures 4A-4K). Three ephemeral streams were delineated during the site visit for a total length of approximately 4,736 feet along with three open waters for a total of 1.63 acres (Figures 4A-4K). Details about the wetlands, streams, and open waters can be found in Tables 2 and 3, respectively.

Wetland ID	Figure	Wetland Classification ¹ (Cowardin)	Area (acres)	Likely Non-jurisdictional ^{2,3}
1	4A	PEMA	0.01	
2	4B,C,D	PEMA	0.75	
3	4D	PEMA	0.22	Х
4	4D	PEMA	0.04	Х
5	4D	PEMA	0.03	
6	4D	PEMA/C	0.28	
7	4D	PEMC	0.07	
8	4F	PEMA	0.26	
9	4F	PEMA	0.1	
10	4G	PEMA/C	1.09	
11	41	PEMA/C	0.32	Х
12	4K	PEMA	0.37	Х
13	4K	PEMA	1.09	Х

Table 2. Delineated Wetlands

Notes:

1_

PEMA = Palustrine Emergent Temporarily Flooded

PEMC = Palustrine Emergent Seasonally Flooded

² – All wetlands are assumed to be jurisdictional under Section 404 of the Clean Water Act, unless a USACE Jurisdictional Determination is received indicating otherwise.

³ – Any wetlands indicated as possibly non-jurisdictional are discussed in Section 4.



Table 3. Other Water Resources

		Char	nnels	
Channel ID	Figure	Type ¹	Size (Linear Feet)	Likely Non-jurisdictional ^{2,3}
Channel 1	4A	Ephemeral	268	
Channel 2	4B,C,D	Ephemeral	3,284	
Channel 3	4F	Ephemeral	1,184	

Notes:

1_

Other water resources are non-wetland water resources such as channels, ponds, and canals.

² – All water resources are assumed to be jurisdictional under Section 404 of the Clean Water Act, unless a USACE Jurisdictional Determination is received indicating otherwise.

³ – Water resources indicated as possibly non-jurisdictional are discussed in Section 4.

Section 4 – Discussion

The majority of wetlands observed in the Project Study Area were located in roadside and trackside ditches and dominated by species typically found in ditches such as *Phalaris arundinacea, Salix interior, Typha angustifolia, Carex* species, etc. Several of the wetlands were connected via culverts under the roadway and railroad tracks. Wetlands were also found in agricultural swales and were dominated by *Phalaris arundinacea* and *Typha angustifolia*. Agricultural swales that did not contain wetlands were dominated by upland species such as *Festuca arundinacea, Bromus inermis,* and *Solidago* species. Many of the wetlands on this project site were formed due to the ditches created by the Rail One facility.

Likely non-jurisdictional Wetlands:

Table 2 lists wetlands identified during the delineation that are considered likely nonjurisdictional. Wetland 3 is located in a geomorphic low spot in the Rail One parking lot ditch. Wetland 3 drains to an upland swale in an agricultural field that drains to a railroad ditch. Wetland 3 appears to have no direct connection to a water of the U.S.

Wetland 4 is located in an agricultural field in front of the Rail One industrial building. The wetland appears to have been farmed over, but hydrophytic vegetation was still growing along with areas of ponded water. Wetland 3 drains west to a culvert along the driveway entrance to the Rail One facility where it then drains south to the county road ditches. This wetland has no direct connection to a waters of the U.S. and is therefore considered isolated.



Wetland 11 is located in a low depression in an agricultural field. The wetland receives its water from agricultural and stormwater runoff and a groundwater source. The wetland appears to be isolated within the agricultural field on a higher elevation than the surrounding fields. This wetland has no direct connection to a water of the U.S.

Wetland 12 and 13 are located in an agricultural field. Both wetlands had corn planted through them, but hydrophytic vegetation was still growing between the rows of crop along with ponded areas of water. In years of drought, these wetlands would likely not exist. Both wetlands appear isolated in the farm field with no direct connection to a water of the U.S.

Upland Areas:

Sample point 29 was taken in an agricultural swale that has been isolated by row crop. The area displayed a mixture of *Phalaris arundiancea* and *Bromus inermis* with no hydric soils or hydrology indicators. This area was determined to be upland.













Lincolnway Industrial Rail Clinton County, Iowa Olsson Project # 015-2757 Site Map Figure 2















F:\Projects\015-275740-Design\GIS\15-11-11_ENVA_Delineation Maps.mxd User: rdoty















Project/Site: Lincoln	way Industri	al Rail		City/County:	Clinton C	ounty		Sampling Date:	12/15/2015
Applicant/Owner:	Clinton Deve	elopment				State:	IA	Sampling Point:	16
Investigator(s): M	. Leonard, A.	Cherko				Se	ection,	Township, Range:	S24, T81N, R5E
Landform (hillslope, te	errace, etc.):	Adjacent C	hannel	Local relief (c	oncave, co	nvex, no	ne):	None	
Slope (%): 1-2	Lat:	41.8034	61	Long:	-90.34	4566		Datum:	UTM83
Soil Map Unit Name:	351 - Atterbe	erry silt loam,	sandy sustrau	m 0 to 2% slop	es		NN	/I classification:	None
Are climatic / hydrolog	jic conditions	on the site typ	ical for this time	of year? Yes	X N	٧o	(If r	∩o, explain in Remarks)	
Are Vegetation	, Soil, c	r Hydrology	significantl	ly disturbed?	Are "No	ormal Cir	cumsta	ances" present? Yes	X No
Are Vegetation	, Soil _, c	or Hydrology	naturally p	roblematic?	(If need	led, expla	ain any	answers in Remarks.)	
SUMMARY OF F	INDINGS -	Attach site	map showi	ing sampling	g point lo	ocatior	ns, tra	ansects, importan	t features, etc.
Hydrophytic Vegetatio	n Present?	Yes	X No						
Hydric Soil Present?		Yes	X No	ls th	e Sampled	d Area			
Wetland Hydrology Pr	esent?	Yes	X No	with	in a Wetlar	nd?		Yes <u>X</u> No	
Remarks:									
Wetland 1 is a PEMA	wetland abutt	ing Channel 1							

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
1				Are OBL, FACW, or FAC:	1	(A)
3.	· · · · · · · · · · · · · · · · · · ·	·		Total Number of Dominant		
4				Species Across All Strata:	1	- (B)
5	·	= Total Cover		Demonst of Deminerat Creasing		
Sapling/Shrub Stratum Plot size:	15')			That Are OBL, FACW, or FAC:	100%	(A/B)
2.		· ·		Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4				OBL species	x 1 =	
5.				FACW species	x 2 =	
	·	= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Phalaris arundinacea	75	Х	FACW	UPL species	x 5 =	
2.				Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	· =	
4		· ·		Hydrophytic Vegetation Indica	tors:	
5				1 - Rapid Test for Hydrophy	tic Vegetation	
6	·	· ·		X 2 - Dominance Test is >50%	, 0	
7		· · · · · · · ·		3 - Prevalence Index is <3.0)1	
8				4 - Morphological Adaptatio	ns ¹ (Provide suppor	ting
10		· · · · · · · · ·		Problematic Hydrophytic Ve	detation ¹ (Explain)	
	75	- Total Covor				
Woody Vine Stratum (Plot size: 30)			¹ Indicators of hydric soil and wetl present, unless disturbed or prob	and hydrology must lematic.	be
2.				Hydrophytic		
		= Total Cove	r	Vegetation Yes Present?	Х No	-
Remarks: (Include photo numbers here or	on a separate	sheet.)				

PP 1 - South

E

Profile Descrip	tion: (Describe to Matrix	the depth r	eeded to docu	Redox Feat	dicator or o	confirm t	the absence of ind	licators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10 YR 2/1	100	(Clay Loam	
							·	
		··········						
. <u></u>		<u> </u>					. <u> </u>	
·							·	
¹ Type: C=Conc	entration, D=Deple	tion, RM=Re	educed Matrix, I	MS=Masked	Sand Grain	s.	² Location: PL=F	Pore Lining, M=Matrix
Hydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A1)			Sandy Gley	ved Matrix (S	54)	Coast P	rairie Redox (A16)
Histic Epi	pedon (A2)		_	Sandy Red	ox (S5)		Dark Su	rface (S7)
Black Hist	tic (A3)			Stripped Ma	atrix (S6)		Iron-Ma	nganese Masses (F12)
Hydrogen	Sulfide (A4)			Loamy Muc	ky Mineral ((F1)	Very Sh	allow Dark Surface (TF12)
Stratified	Layers (A5)		_	Loamy Gley	yed Matrix (F2)	X Other (E	Explain in Remarks)
2 cm Muc	k (A10)			Depleted M	latrix (F3)			
Depleted	Below Dark Surfac	e (A11)	_	Redox Dark	< Surface (F	6)	2	
Thick Dar	k Surface (A12)		_	Depleted D	ark Surface	(F7)	Indicators	of hydrophytic vegetation and
Sandy Mu	icky Mineral (S1)		_	Redox Dep	ressions (F8	3)	unless	disturbed or problematic.
5 cm Muc	ky Peat or Peat (S	3)						
Restrictive Lay	er (if observed):							
Туре:	Wa	ter						
Depth (inche	es):	5					Hydric Soil Prese	nt? Yes <u>X</u> No
present. The are following indicat hydric.	ea is located in a la or of problematic s	ndscape pos oils is presei	sition that is like nt (Part 4b2-Flu	ely to collect on the section of the	or concentra	ate water oodplain)	(Part 3b - active flo therefore the soils	odplain or low terrace). The in this area should be considered
HYDROLOG	iΥ							
Wetland Hydro	logy Indicators:							
Primary India	cators (minimum of	one is requi	ired; check all t	hat apply)	(= -)		Secondary In	dicators (minimum of two required)
Surface V	Vater (A1)		Water-Sta	ained Leaves	; (B9)		Surface So	bil Cracks (B6)
X High Wate	er Table (A2)		Aquatic F	auna (B13)			Drainage F	Patterns (B10)
X Saturation	ו (A3) בוגב (B4)		True Aqua	atic Plants (B	814) 		Dry-Seaso	n Water Table (C2)
Water Ma	Doposito (P2)			Sulfide Odo	r (C1) coc Living I	Pooto (C2	Crayfish B	Visible on Asriel Imageny (CO)
	Deposits (B2)			of Reduced	Iron (C4)		5)Stunted or	Stressed Plants (D1)
Algal Mat	or Crust $(B4)$		Recent Irr		in Tilled Sc		Geomorph	ic Position (D2)
Iron Depo	sits (B5)		Thin Mucl	CSurface (C7	7)	JIIS (CO)	X FAC-Neutr	al Test (D5)
Inundation	n Visible on Aerial I	magery (B7)	Gauge or	Well Data (D))		<u> </u>	
Sparsely	Vegetated Concave	e Surface (B	8) Other (Ex	plain in Rem	árks)			
Field Observat	ions:							
Surface Water F	Present? Yes	Ν	lo X D	epth (inches))			
Water Table Pre	esent? Yes	XN	lo D	epth (inches) 5"			
Saturation Pres	ent? Yes	XN	lo D	epth (inches)) 0"	Wetland	d Hydrology Prese	nt? Yes X No
(includes capilla	ry fringe)			l al at				
Describe Record	ded Data (stream g	auge, monit	oring well, aeria	ai photos, pre	evious inspe	ctions), if	available:	
Remarks:								

Project/Site: Lincoln	way Industri	al Rail		City/Co	unty: Clin	ton County		Sampling Date:	1	2/15/2015
Applicant/Owner:	Clinton Deve	elopment				State:	IA	Sampling Point:		17
Investigator(s): M.	Leonard, A.	Cherko				Se	ection,	Township, Range:	S24,	T81N, R5E
Landform (hillslope, te	rrace, etc.):	Adjacent Cha	nnel	Local re	ief (concav	ve, convex, no	ne):	None		
Slope (%): 0-1	Lat:	41.803391		Long:	-	90.344512	-	Datum:	UTM	83
Soil Map Unit Name:	918 - Garwin	silty clay loam,	sandy s	ubstratum, 0	to 2% sloj	bes	NV	VI classification:		None
Are climatic / hydrolog	ic conditions	on the site typical	for this t	ime of year?	Yes X	No	(If	no, explain in Remarks	;)	
Are Vegetation	, Soil, o	r Hydrology	signific	antly disturbed	A ?t	e "Normal Cir	cumst	ances" present? Yes	Х	No
Are Vegetation	, Soil , o	r Hydrology	natura	lly problematic	? (li	needed, expla	ain an	y answers in Remarks.)	
SUMMARY OF FI	NDI <mark>NGS</mark> -	Attach site m	ap sho	owing sam	pling po	int locatior	ns, tr	ansects, importa	nt fea	atures, etc.
Hydrophytic Vegetation	n Present?	Yes	No	Х						
Hydric Soil Present?		Yes	No	Х	Is the Sa	npled Area				
Wetland Hydrology Pre	esent?	Yes	No	Х	within a \	Vetland?		Yes N	o	x
Remarks:										
Outpoint for SP 16										
VEGETATION - U	se scienti	fic names of I	olants.	I						

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species That		
1				Are OBL, FACW, or FAC:	0	(A)
2		<u> </u>				
3		<u> </u>		Total Number of Dominant		
4				Species Across All Strata:	1	(B)
5.						
		= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size: 15	5')			That Are OBL, FACW, or FAC:	0%	(A/B)
1.						
2.				Prevalence Index worksheet:		
3.		·		Total % Cover of:	Multiply by:	
4.		·		OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')		-		FACU species	x 4 =	—
1. Festuca arundinacea	80	Х	UPL	UPL species	x 5 =	—
2.		- <u> </u>		Column Totals:	(A)	(B)
3		- <u> </u>		Prevalence Index = B/A	=	_``
4		·				_
				Hydrophytic Vegetation Indicate	ors:	
5		·		1 - Rapid Test for Hydrophyti	ic Vegetation	
6	-			2 - Dominance Test is >50%		
7		·		3 - Prevalence Index is <3.01		
8				4 - Morphological Adaptation	s ¹ (Provide suppor	ting
9				 data in Remarks or on a separate 	arate sheet)	
10.				Problematic Hydrophytic Veg	getation ¹ (Explain)	
	80	= Total Cover				
Woody Vine Stratum (Plot size: 30')	-		¹ Indicators of hydric soil and wetla	nd hydrology must	be
1.				present, unless disturbed or proble	ematic.	
2.				Hydrophytic		
		= Total Cove	er	Vegetation Yes	No X	
		-		Duese surf 2		

Inchesity Color (mole) % Typel Loc ² Toture Remarks 0-22 10 YR 2/2 100 10 YR 2/2 100 Loarn Loarn Loarn Type: Coconstruction Depletion RKMarks Loarn Loarn Loarn Type: Coconstruction Depletion RKMarks Indicators for Problematic Hydric Solis Histos (14) Astrona (17) Sandy Redox (35) Loarn Loarn Loarn Histos (14) Sandy Redox (35) Loarn Loarnagenee Masses (F12) Loarny Macry Mineral (S1) User Soli Present? Yes No 2 cm Muck (M10) Depleted Matrix (S2) Depleted Matrix (S2) Thick Dark Surface (A12) Depleted Matrix (S2) Thick Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation an welliant hydrology must be present unless disturbed or problematic. 2 cm Muck (M10) Depleted Matrix (S2) Surface Soli Present? Yes No Stripped Matrix (S2) True Arguite Plants (S1) Cost Present? Yes No		Matrix		Redox Feat	ures	_	
0-22 10 YR 22 100 Loam	(inches)	Color (moist)	% Color ((moist) %	Type ¹ Loc ²	Texture	Remarks
Type: Cacation: PL=Pore Lining, M=Matrix Flydre Soil Indicators: Indicators for Problematic Hydric Soils? Hatosoi (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Black Histor (A2) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Black Histor (A3) Stripped Matrix (S4) Coast Prairie Redox (A16) Stripped Matrix (S4) Dark Surface (S7) Uvery Shallow Dark Surface (TF12) Stripped Matrix (S7) Depleted Matrix (S7) Other (Explain in Remarks) Depleted Network (M10) Depleted Matrix (S7) Other (Explain in Remarks) Stripped Matrix (S1) Depleted Matrix (S7) Other (Explain in Remarks) Stripped Matrix (Muery Mineral (S1) Redox Dapressions (F8) Indicators of hydrophytic vegetation an wetland hydrology must be present unless disturbed or problematic. Stripped Matrix (Muery Peat or Peat (S3) Redox Dapressions (F8) Indicators (Ininimum of two req Surface Water (A1) Water-Stained Lawes (B1) Depleted Redox (B1) Depleted Redox (B1) Stripped Matrix (S1) Matrix Hinduct Eaves (B1) Depleted Redox (B1) Depleted Redox (B1) Stripped Matrix (S1) Matrix Matrix Hinduct Eaves (B1) Depleted Redox (B1) Depleted Redox (B1) <	0-22	10 YR 2/2	100			Loam	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators:							
'ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix 'ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix 'ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix 'Histosol (A1) Sandy Redox (S5) Indicators for Problematic Hydric Solls' 'Histosol (A2) Sandy Macky Mineral (F1) Other (Explain in Remarks) 'Depleted Dark Surface (A12) Depleted Matrix (F2) Other (Explain in Remarks) 'Depleted Dark Surface (A12) Depleted Matrix (F3) Prince (A12) 'Sandy Mucky Mineral (S1) Redox Dark Surface (F6) *Indicators of hydrophytic vegetation an wetland hydrology must be present unless disturbed or problematic. 'Sorting Variation (A3) Redox Depressions (F3) *Indicators (minimum of two req Surface Water (A11) 'surface Variation (X3) True Aquatic Flants (B14) Diral Surface (A12) 'Surface Water (A1) Water Stained Lawes (B3) Surface Soil Cracks (B6) 'Hight Vater Table (A2) Aquatic Flants (B14) Diral Surface (A12) 'Surface Water (A1) Hydrogen Sulface Odor (C1) Surface Nation Vaible on Aerial Imager (C2) 'Surface							
Type: C-Concentration, D-Depletion, RM=Reduced Matrix, MS-Masked Sand Grains. *Location: PL-Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils* Histos (A1) Sandy Gleved Matrix (S) Dark Surface (S7) Black Histic (A3) Stripped Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Toro-Manganese Masses (F12) Other (Explain in Remarks) Coarty Surface (F6) Toric Manganese Masses (F12) Other (Explain in Remarks) Depleted Matrix (F3) Poleted Matrix (F3) Sandy McKy Mineral (S1) Redox Dark Surface (F7) *Indicators of hydrophytic vegetation an unless disturbed or problematic. strictive Layer (if observed): Trype: Redox Depressions (F8) *Indicators (minimum of one is required; check all that apply) Surface Soil Oracks (B1) Hydric Soil Present? Yes No Matrix (B1) Hydragen Sulface Oracle (C1) Saturation (A3) Depleted Park Surface (C2) Surface Soil Cracks (B1) Hydricogn Sulface Oracle (C2) Cracks (B6) Drahage Patterns (B10) Surface Soil Cracks (B1) Hydragen Sulface Oracle (C1) Saturation Visible on Aerial Imagery (C2) Surface Soil Cracks (B2) Oxidized Rhitrospheres on Lining Roo							
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Coast Praine Redox (A16) Hydric Soil Indicators: Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Dopleted Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A11) Redox Dark Surface (F7) Gandy Mucky Mineral (S1) Redox Depressions (F8) estrictive Layer (If observed): Type: Type: Mydric Soil Present? Yes No Surface Water (A1) Water-Stained Lawes (B3) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Drainage Patterns (B10) Surface Soil Cracks (B1) Hydrogen Suffied Cofr (C1) Drainage Patterns (B10) Surface Soil Cracks (B1) Hydrogen Suffied Cofr (C1) Drainage Patterns (B10) Sauration Visibie on Anaial Imagery (B7) Crasifis Bur							
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Toro-Marganese Masses (F12) Toro-Marganese Masses (F1	Histic Enir	(A2)		Sandy Red	ov (S5)	 Dark Surfa	ce (S7)
Black histic (A3)	Plack List	tio (A2)		Stripped M	(05)		00 (07)
Pryprogen Sullide (A)							
Chain (Rey Bay Math (P2) Control (Explain in Remarks) Control (Control (Remarks) Contro	Hydrogen	Sulfide (A4)			Ky Mineral (F1)		bw Dark Surface (TF12)
2 cm muco, (n10)		Layers (AD)			$r \in U$ ivial IX ($\Gamma \angle$)		iain in Remarks)
Depleted below Dark Sundae (A11)		K (A1U) Dalaw Dark Surface	(atrix (F3)		
Indicators Surface (A12)			(ATT)			31	hudrophytic sector (an and
Sourdy Mucky Miniferal (S1)		k Sufface (A12)			ark Surrace (F7)	indicators of wetland h	hydrophytic vegetation and
	Sandy Mu	icky Mineral (S1)			essions (F8)	unless di	sturbed or problematic.
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Project/Site: Lincolnway Inc	dustrial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clinton	1 Development		State: I	A Sampling Point:	18
Investigator(s): M. Leona	rd, A. Cherko		Sect	ion, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, e	tc.): Ditch	Local relief (c	concave, convex, none): Concave	
Slope (%): 1-3 Lat:	41.803815	Long:	-90.340044	Datum:	UTM83
Soil Map Unit Name: 918 - G	arwin silty clay loam, sandy su	bstratum, 0 to 2%	% slopes	NWI classification:	None
Are climatic / hydrologic condi	tions on the site typical for this tin	ne of year? Yes	X No	(If no, explain in Remarks))
Are Vegetation, Soil	, or Hydrologysignifica	intly disturbed?	Are "Normal Circu	mstances" present? Yes	X No
Are Vegetation, Soil	, or Hydrologynaturally	/ problematic?	(If needed, explain	any answers in Remarks.)	
SUMMARY OF FINDING	GS - Attach site map show	wing samplin	g point locations	, transects, importan	it features, etc.
Hydrophytic Vegetation Prese	nt? Yes X No				
Hydric Soil Present?	Yes X No	Is th	e Sampled Area		
Wetland Hydrology Present?	Yes X No	with	in a Wetland?	Yes <u>X</u> No	<u> </u>
Remarks:					
Wetland 2 is a PEMA wetland	abutting Channel 2 in a railroad o	ditch.			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
1				Are OBL, FACW, or FAC:	2	. (A)
3.		· ·		Total Number of Dominant		
4		·		Species Across All Strata:	2	(B)
5		= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size:	15')			That Are OBL, FACW, or FAC:	100%	(A/B)
1 2.		·		Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	—
1. Phalaris arundinacea	70	Х	FACW	UPL species	x 5 =	
2. Typha angustifolia	30	X	OBL	Column Totals:	(A)	(B)
3				Prevalence Index = B/A	\ =	_
4		· ·		Hydrophytic Vegetation Indica	tors:	
5		· ·		1 - Rapid Test for Hydrophy	tic Vegetation	
o		· ·	<u> </u>	X 2 - Dominance Test is >50%	6	
7				3 - Prevalence Index is <3.0)1	
8 9.				4 - Morphological Adaptatio	ns ¹ (Provide suppor parate sheet)	ting
10		· ·	<u> </u>	Problematic Hydrophytic Ve	equation ¹ (Explain)	
····	100	- Total Cover			gotation (Explain)	
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetl present, unless disturbed or prob	and hydrology must lematic.	be
2.				Hydrophytic		
		= Total Cove	r	Vegetation Yes Present?	Х No	-
Remarks: (Include photo numbers here or c	n a separate	sheet.)				

PP 2- East

18

Depth	Matrix	F	Redox Feat	ures			
(inches) Color (m	oist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
		i				· · · ·	
			·				
			·				
be: C=Concentration, I	D=Depletion, RM=	Reduced Matrix, M	S=Masked	Sand Grai	ns.	² Location: PL=F	Pore Lining, M=Matrix
Hydric Soil Indicators	:					Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A1)		:	Sandy Gley	ed Matrix	(S4)	Coast P	rairie Redox (A16)
Histic Epipedon (A2)			Sandy Red	ox (S5)		Dark Su	Irface (S7)
Black Histic (A3)			Stripped M	atrix (S6)		Iron-Ma	nganese Masses (F12)
Hvdrogen Sulfide (A	4)	—	oamv Mu	kv Mineral	l (F1)	 Verv Sh	allow Dark Surface (TF12)
Stratified Layers (A5)	—	Loamy Gle	ved Matrix	(F2)	Other (E	Explain in Remarks)
2 cm Muck (A10)		—	Depleted M	latrix (F3)	. /		,,
Depleted Below Dark	(Surface (A11)	—	Redox Dar	(Surface (F6)		
	A12)		Depleted D	ark Surfac	e (F7)	³ Indicators	of hydrophytic vegetation and
Sandy Mucky Minera	(S1)	—	Redox Den	ressions (F	-8)	wetlar	id hydrology must be present,
5 cm Mucky Post or	Poot (\$2)	—			0)	unless	disturbed or problematic.
	- out (00)						
trictive Layer (if obse Type: Depth (inches): narks: No pit dug d	Water Surface ue to inundation.	Soils are assumed I	hydric due	to a preser	H nce of hydro	lydric Soil Prese	nt? Yes X No
trictive Layer (if obse Type: Depth (inches): narks: No pit dug d	Water Surface ue to inundation.	Soils are assumed	hydric due	to a preser	H nce of hydro	lydric Soil Prese	nt? Yes X No
trictive Layer (if obse Type: Depth (inches): narks: No pit dug d DROLOGY	Water Surface ue to inundation.	Soils are assumed l	hydric due	to a preser	hce of hydro	lydric Soil Prese	nt? Yes X No
trictive Layer (if obse Type: Depth (inches): narks: No pit dug d DROLOGY tland Hydrology Indic	Water Surface ue to inundation.	Soils are assumed l	hydric due	to a preser	hnce of hydro	lydric Soil Prese phytic vegetation	nt? Yes X No
trictive Layer (if obse Type: Depth (inches): narks: No pit dug d DROLOGY tland Hydrology Indica Primary Indicators (min	Water Surface ue to inundation.	Soils are assumed I	hydric due	to a preser	hce of hydro	lydric Soil Prese phytic vegetation Secondary In	nt? Yes X No and hydrology indicators dicators (minimum of two requ
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trictive Layer (if obse Type: Depth (inches): harks: No pit dug d DROLOGY Iand Hydrology Indic: Primary Indicators (min X Surface Water (A1) High Water Table (A	Water Surface ue to inundation. ators: imum of one is re	Soils are assumed I equired; check all tha Water-Stair Aquatic Fat	hydric due at apply) ned Leaves una (B13)	to a preser	hnce of hydro	hydric Soil Presen phytic vegetation Secondary In Surface So Drainage F	nt? Yes X No and hydrology indicators dicators (minimum of two requ bil Cracks (B6) Patterns (B10)
trictive Layer (if obse Type: Depth (inches): harks: No pit dug d DROLOGY Iand Hydrology Indicators Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3)	Water Surface ue to inundation. ators: imum of one is re	Soils are assumed I equired; check all tha Water-Stair Aquatic Fau True Aquat	hydric due at apply) ned Leaves una (B13) ic Plants (E	to a preser 6 (B9) 314)	nce of hydro	hydric Soil Prese phytic vegetation Secondary In Surface So Drainage F Dry-Seaso	nt? Yes X No and hydrology indicators dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2)
trictive Layer (if obse Type: Depth (inches): Depth (inches): Darks: No pit dug d DROLOGY Iand Hydrology Indicators Primary Indicators (min X Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	Water Surface ue to inundation. ators: imum of one is re	Soils are assumed l equired; check all tha Water-Stair Aquatic Fau True Aquat True Aquat	hydric due at apply) ned Leaves una (B13) ic Plants (E Sulfide Odo	to a preser ; (B9) 314) r (C1)	hnce of hydro	hydric Soil Prese phytic vegetation Secondary In Surface So Drainage F Dry-Seaso Crayfish B	nt? Yes X No and hydrology indicators dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)
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trictive Layer (if obse Type: Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Primary Indicators (min X Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B3) Inundation Visible or Sparsely Vegetated d Observations: face Water Present? ter Table Present? uration Present?	Water Surface ue to inundation. ators: imum of one is re 2) B2) 44) A Aerial Imagery (Concave Surface Yes X Yes Yes Yes	Soils are assumed I equired; check all that Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iror Thin Muck S B7) Gauge or V (B8) Other (Expl No X De No X De	hydric due at apply) hed Leaves una (B13) ic Plants (E Sulfide Odo hizosphere f Reduced h Reductior Surface (C Vell Data (I ain in Rem pth (inches pth (inches pth (inches	to a preser (B9) (B9) (C1) s on Living Iron (C4) in Tilled S (C4) arks) (C4	Roots (C3) Soils (C6)	hydric Soil Preser phytic vegetation Secondary In Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or X Geomorph X FAC-Neutr	nt? Yes X No and hydrology indicators dicators (minimum of two requination of Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
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Project/Site: Lincolnway Indus	trial Rail	City/Count	ty: Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clinton Do	evelopment		State: IA	Sampling Point:	14
Investigator(s): M. Leonard,	A. Cherko		Sectio	on, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, etc.)	Farm field	Local relief	f (concave, convex, none):	None	
Slope (%): 0-1 Lat:	41.801731	Long:	-90.3287	Datum:	UTM83
Soil Map Unit Name: 351 - Atter	berry silt loam, sa	ndy sustraum 0 to 2% sl	lopes	VWI classification:	None
Are climatic / hydrologic condition	is on the site typica	I for this time of year? Ye	es X No (If no, explain in Remarks)
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	Are "Normal Circum	stances" present? Yes	X No
Are Vegetation, Soil	, or Hydrology	naturally problematic?	(If needed, explain a	any answers in Remarks.))
SUMMARY OF FINDINGS	- Attach site n	nap showing sampli	ing point locations,	transects, importar	nt features, etc.
Hydrophytic Vegetation Present?	Yes X	No			
Hydric Soil Present?	Yes X	No	the Sampled Area		
Wetland Hydrology Present?	Yes X	No	ithin a Wetland?	Yes <u>X</u> Ne	o
Remarks:		I			
Wetland 3 is a PEMA wetland in	an agricultural field	that has been farmed over	r.		

VEGETATION - Use scientific names of plants.

2		Total Number of Dominant Species Across All Strata:	1	(B)
5 = Tota	al Cover			(-)
,		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2		Prevalence Index worksheet:		
3.		Total % Cover of:	Multiply by:	
4.		OBL species	x 1 =	-
5.		FACW species	x 2 =	-
= Tota	al Cover	FAC species	x 3 =	-
Herb Stratum (Plot size: 5')		FACU species	x 4 =	-
1. Echinochloa crus-galli 100	X FACW	UPL species	x 5 =	
2.		Column Totals:	(A)	(B)
3.		Prevalence Index = B/A =	=	
4.		Hydrophytic Vegetation Indicator 1 - Rapid Test for Hydrophytic X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations data in Remarks or on a sepa Problematic Hydrophytic Veg 1 1 1 1 3 4 4 9 1 <td>ors: c Vegetation s¹ (Provide supporti arate sheet) jetation¹ (Explain) nd hydrology must l ematic.</td> <td>ing be</td>	ors: c Vegetation s ¹ (Provide supporti arate sheet) jetation ¹ (Explain) nd hydrology must l ematic.	ing be
= T	otal Cover	Vegetation Yes /	KNo	

PP - 3 Northwest

··· ·					- 1	. 2	-	- .
(inches)	Color (moist)	%	Color (moi	st) %	Туре	Loc ²	Texture	Remarks
0-20	10 YR 2/1	100					Clay Loam	
							<i>.</i>	
e: C=Con	centration, D=Deple	tion, RM=	Reduced Matr	ix, MS=Masked	d Sand Grair	ns.	² Location: PL=	Pore Lining, M=Matrix
lydric Soil	Indicators:					-	Indicators f	or Problematic Hydric Soils
Histosol ((A1)			Sandy Gle	yed Matrix (S4)	Coast I	Prairie Redox (A16)
Histic Ep	ipedon (A2)			Sandy Rec	dox (S5)		Dark S	urface (S7)
Black His	stic (A3)			Stripped N	latrix (S6)		Iron-Ma	anganese Masses (F12)
Hydroger	n Sulfide (A4)			Loamy Mu	cky Mineral	(F1)	Very S	hallow Dark Surface (TF12)
Stratified	Layers (A5)			Loamy Gle	eyed Matrix ((F2)	Other (Explain in Remarks)
2 cm Mu	ck (A10)			Depleted N	Matrix (F3)			
Depleted	Below Dark Surfac	e (A11)		Redox Dar	k Surface (F	- 6)		
Thick Da	rk Surface (A12)			Depleted [Dark Surface	e (F7)	³ Indicator	s of hydrophytic vegetation an
Sandy M	ucky Mineral (S1)			Redox Dep	oressions (F	8)	wetla	nd hydrology must be present
5 cm Mu	cky Peat or Peat (S	3)					unies	s disturbed of problematic.
triativa Las								
	yer (il observed).							
Type: Denth (inch	<u>ec).</u>						Hydric Soil Press	ant? Yes X No
Depth (inchen narks: procedure a was a wet	es): described in the Mid land. The soils at th	Jwest Regi	ion USACE D	elineation Man	ual, Chapter hydric soils,	5, page 1	Hydric Soil Prese 13-117, was used tors of hydrophytic	to evaluate soils to determine vegetation and hydrology are
Depth (inchon narks: procedure a was a wet sent. The ar cator of prol	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre	dwest Reg is site mee ndscape p sent (Part	ion USACE D at the criteria f osition that is 4b6-Other, sc	elineation Manu for problematic likely to collect pils disturbed du	ual, Chapter hydric soils, or concentr ue to farming	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the so	to evaluate soils to determine vegetation and hydrology are nearly level area). The followi ils in this area should be cons
Depth (inchonarks: procedure was a wet ent. The ar cator of prol ric.	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre	dwest Reg is site mee ndscape p sent (Part	ion USACE D at the criteria f osition that is 4b6-Other, sc	Pelineation Manu for problematic likely to collect pils disturbed du	ual, Chapter hydric soils, or concentr ue to farming	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the sc	ent? Yes X No to evaluate soils to determine vegetation and hydrology are nearly level area). The followi is in this area should be cons
Depth (incho parks: procedure was a wet ent. The ar cator of prol ic. DROLOC	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre 3Y blogy Indicators:	dwest Reg is site mee ndscape p sent (Part	ion USACE D at the criteria f osition that is 4b6-Other, sc	elineation Man for problematic likely to collect bils disturbed du	ual, Chapter hydric soils, or concentr ue to farming	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the sc	ent? Yes X No to evaluate soils to determine vegetation and hydrology are nearly level area). The followi ils in this area should be cons
Depth (inchonarks: procedure a was a wet ent. The ar actor of prol ic. DROLOC Primary Indi	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre 3Y Jogy Indicators: icators (minimum of	dwest Reg is site mee ndscape p sent (Part	ion USACE D at the criteria f osition that is 4b6-Other, sc uired; check a	elineation Man for problematic likely to collect bils disturbed du all that apply)	ual, Chapter hydric soils, or concentr ue to farming	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the sc Secondary In	ent? Yes X No to evaluate soils to determine vegetation and hydrology are nearly level area). The followi ils in this area should be cons
Depth (inch harks: procedure was a wet ent. The ar cator of prol ic. DROLOC land Hydro Primary Indi Surface \	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre 3Y blogy Indicators: icators (minimum of Water (A1)	dwest Reg is site mee ndscape p sent (Part	ion USACE D at the criteria f osition that is 4b6-Other, sc uired; check a Water-	elineation Man for problematic likely to collect bils disturbed du all that apply) -Stained Leaves	ual, Chapter hydric soils, or concentr ue to farming s (B9)	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the sc <u>Secondary li</u> Surface S	ent? Yes X No to evaluate soils to determine vegetation and hydrology are nearly level area). The followi ils in this area should be cons ndicators (minimum of two req oil Cracks (B6)
Depth (inch narks: procedure was a wet ent. The ar cator of prol ic. DROLOC Iand Hydro Primary Indi Surface V High Wat	es): described in the Mid land. The soils at th rea is located in a la blematic soils is pre 3Y Jogy Indicators: icators (minimum of <i>N</i> ater (A1) ter Table (A2)	dwest Reg is site mee ndscape p sent (Part	ion USACE D et the criteria f osition that is 4b6-Other, sc uired; check a Water- Aquati	elineation Mani for problematic likely to collect bils disturbed du all that apply) -Stained Leave c Fauna (B13)	ual, Chapter hydric soils, or concentr ue to farming s (B9)	5, page 1 , as indicat rate water g practices	Hydric Soil Prese 13-117, was used tors of hydrophytic (Part 3c - level or s), therefore the sc <u>Secondary In</u> <u>Surface S</u> X Drainage	ent? Yes X No to evaluate soils to determine vegetation and hydrology are nearly level area). The followi is in this area should be cons ndicators (minimum of two req oil Cracks (B6) Patterns (B10)
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Project/Site: Lincolny	way Industria	al Rail		City/Co	unty:	Clintor	n County		Sampling Date:	1	1/10/2015
Applicant/Owner:	Clinton Deve	lopment					State:	IA	Sampling Point:		15
Investigator(s): M.	Leonard, A.	Cherko					Se	ection,	Township, Range:	S24,	T81N, R5E
Landform (hillslope, ter	race, etc.):	Farm field		Local re	lief (c	oncave,	convex, no	ne):	None		
Slope (%): 0-1	Lat:	41.801623		Long:		41.	801623		Datum:	UTM	83
Soil Map Unit Name:	918 - Garwin	silty clay loam,	sandy s	substratum, 0	to 2%	6 slopes	S	NV	VI classification:		None
Are climatic / hydrologi	c conditions o	on the site typical	for this	time of year?	Yes	Х	No	(lf	no, explain in Remarks	;)	
Are Vegetation,	, Soil, o	r Hydrology	signifi	cantly disturbe	d?	Are	"Normal Cir	cumst	ances" present? Yes	Х	No
Are Vegetation ,	, Soil , o	r Hydrology	natura	Illy problematio	?	(If ne	eeded, expla	ain an	y answers in Remarks.)	
SUMMARY OF FI	NDINGS -	Attach site m	ap sh	owing sam	pling	g poin	t locatior	ns, tr	ansects, importa	nt fea	atures, etc.
Hydrophytic Vegetation	Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	ls th	e Samp	led Area				
Wetland Hydrology Pre	esent?	Yes	No	Х	with	in a We	tland?		Yes N	o	<u>×</u>
Remarks:											
Outpoint for SP 14											
VEGETATION - U	se scientif	fic names of p	olants								

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species That		
1				Are OBL, FACW, or FAC:	0	(A)
2						
3				Total Number of Dominant		
4				Species Across All Strata:	2	(B)
5						
		= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size: 15	;)			That Are OBL, FACW, or FAC:	0%	(A/B)
1						
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.		·		FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Festuca arundinacea	80	Х	UPL	UPL species	x 5 =	
2. Zea mays	20	X	UPL	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	=	_
4.						
5.		·		Hydrophytic Vegetation Indicate	ors:	
6.				1 - Rapid Test for Hydrophyti	c Vegetation	
7				2 - Dominance Test is >50%		
8				3 - Prevalence Index is <3.01		
··				4 - Morphological Adaptation	s ¹ (Provide support	ting
9		·		data in Remarks or on a sepa	arate sheet)	
10				Problematic Hydrophytic Veg	jetation' (Explain)	
	100	= Total Cover				
Woody Vine Stratum (Plot size: 30')			Indicators of hydric soil and wetla	nd hydrology must	be
1				present, unless disturbed or proble	ematic.	
2				Hydrophytic		
		= Total Cove	r	Present?	<u>No X</u>	
Remarka: (Include photo numbers have as an	a conorcto	aboot)				
include photo numbers here of on	a separate	sneet.)				

Depth	Matrix			Redox F	eatures			
inches)	Color (moist)	%	Color (mo	ist) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 2/1	100					Clay Loam	
					_		. <u> </u>	
							. <u> </u>	
e: C=Conc	entration. D=Depl	etion. RM=F	Reduced Mat	rix. MS=Mas	ked Sand Gra	ins.	² Location: PL=P	Pore Lining, M=Matrix
lydric Soil I	Indicators:	,					Indicators fo	r Problematic Hydric Soils ³ :
- Histosol (/	A1)			Sandv (Gleved Matrix	(S4)	Coast P	rairie Redox (A16)
Histic Epir	nedon (A2)			Sandy [Redox (S5)	(0.)	Dark Su	rface (S7)
- Black Hist	tic $(A3)$			Stripper	Matrix (S6)		lron-Mai	nganese Masses (E12)
					Muslu Minoro			
Stratified I				Loomy	Nucky Minera	(F1) (F2)	Other (F	allow Dark Sunace (TFTZ)
				Denlete		(ГZ)		
	K (ATU) Dalaw Dark Curfa	(////)		Depiete				
	Below Dark Surfa	ce (A11)			Jark Surface	(F6)	31	- Charles a bard's superstant's a soul
	K Surface (A12)					же (F7)	Indicators	of hydrophytic vegetation and d hydrology must be present
Sandy Mu	ucky Mineral (S1)			Redox I	Jepressions (F8)	unless	disturbed or problematic.
_5 cm Muc	ky Peat or Peat (S	\$3)						
⊽ype: Depth (inche narks:	es):						Hydric Soil Preser	nt? Yes No _>
Type: Depth (inche narks:	es):						Hydric Soil Preser	nt? Yes No _>
Depth (inche narks:	es):						Hydric Soil Preser	nt? Yes No _>
Type: Depth (inche narks: DROLOG land Hydro	es): SY logy Indicators:						Hydric Soil Presei	nt? Yes <u>No</u>
Type: Depth (inche marks: DROLOG land Hydro Primary India	es): SY logy Indicators: cators (minimum of	of one is req	uired; check	all that apply	·)		Hydric Soil Preser	nt? Yes <u>No</u>
Type: Depth (inche narks: DROLOG land Hydro Primary Indic Surface W	es): SY logy Indicators: cators (minimum of Vater (A1)	of one is req	uired; check	all that apply) ives (B9)		Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6)
Type: Depth (inche narks: DROLOG land Hydro Primary India Surface W High Wate	es): SY logy Indicators: cators (minimum of Vater (A1) er Table (A2)	of one is req	uired; check Water Aquat	all that apply Stained Lea ic Fauna (B1) ives (B9) 3)		Hydric Soil Preser	ht? Yes No No http://www.com/commons.com/commons/c
Type: Depth (inche harks: DROLOG Iand Hydro Primary Indic Surface W High Wate Saturatior	es): Comparison of the set of th	of one is req	uired; check Water Aquat True A	all that apply Stained Lea ic Fauna (B1 \quatic Plant	r) ives (B9) 3) s (B14)		Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2)
Type: Depth (inche harks: DROLOG Iand Hydro Primary Indic Surface W High Wate Saturatior Water Ma	es): SY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1)	of one is req	uired; check Water Aquat True A Hydro	all that apply ⁻ Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide () ives (B9) 3) s (B14) Ddor (C1)		Hydric Soil Preser	dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)
Depth (inche harks: DROLOG land Hydro Primary India Surface W High Wate Saturatior Water Ma Sediment	es): SY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) urks (B1) : Deposits (B2)	of one is req	uired; check Water Aquat True <i>A</i> Hydro Oxidiz	all that apply Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (:ed Rhizosph) ives (B9) 3) s (B14) Ddor (C1) eres on Living	g Roots (C3	Hydric Soil Preser	dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Depth (inche harks: DROLOG Dand Hydro Primary India Surface W High Wate Saturatior Water Ma Sediment Drift Depo	es): by blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3)	of one is req	uired; check Water Aquat True A Hydro Oxidiz Prese	all that apply Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (:ed Rhizosph nce of Reduc) ives (B9) 3) s (B14) Ddor (C1) eres on Living ced Iron (C4)	g Roots (C3	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Depth (inche harks: DROLOG Drimary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat	es): Cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) posits (B3) or Crust (B4)	of one is req	uired; check Water Aquat True A Hydro Oxidiz Prese Recer	all that apply Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (red Rhizosph nce of Reduc it Iron Reduc	r) Ives (B9) 3) s (B14) Ddor (C1) eres on Living ced Iron (C4) ttion in Tilled S	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)
Depth (inche harks: DROLOG land Hydro Primary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo	es): blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5)	of one is req	uired; check Water Aquat True A Hydro Oxidiz Prese Recer Thin M	all that apply -Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (ed Rhizosph nce of Reduc 1t Iron Reduc <i>J</i> uck Surface) aves (B9) 3) s (B14) Ddor (C1) eres on Living ced Iron (C4) stion in Tilled S e (C7)	g Roots (C3 Soils (C6)	Hydric Soil Preser	dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Depth (inche harks: DROLOG land Hydro Primary India Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	es): blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial	of one is req Imagery (B	uired; check Water Aquat True A Hydro Oxidiz Prese Recer Thin N 7) Gauge	all that apply Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (ed Rhizosph nce of Reduc it Iron Reduc Auck Surface e or Well Dat) aves (B9) 3) s (B14) Odor (C1) eres on Living ced Iron (C4) tition in Tilled S e (C7) a (D9)	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inche harks: DROLOG land Hydro Primary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V	es): Cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Vegetated Concav	of one is req Imagery (B' 'e Surface (I	uired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin M 7) Gauge 38) Other	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (ed Rhizosph nce of Reduc nce of Reduc fuck Surface or Well Dat (Explain in R	r) vves (B9) 3) 3) 5 (B14) Odor (C1) eres on Living ced Iron (C4) ced Iron (C4) ction in Tilled S (C7) a (D9) cemarks)	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Depth (inche harks: DROLOG land Hydro Primary India Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely V d Observati	es): GY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions:	of one is req Imagery (B' 'e Surface (I	uired; check Water Aquat True A Hydro Oxidiz Prese Recer Thin N 7) Gauge 38) Other	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (ed Rhizosph nce of Reduc 1t Iron Reduc Auck Surface 9 or Well Dat (Explain in R	y) aves (B9) 3) s (B14) Odor (C1) eres on Living ced Iron (C4) tion in Tilled S e (C7) a (D9) temarks)	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inche narks: DROLOG land Hydro Primary India Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V d Observati ace Water F	es): by blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye	of one is req Imagery (B' 'e Surface (I	uired; check Water Aquat True A Hydro Oxidiz Prese Recer Thin M 7) Gauge 38) Other	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (e Rhizosph nce of Reduc nt Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc) ives (B9) 3) s (B14) Odor (C1) eres on Living ced Iron (C4) tion in Tilled S e (C7) a (D9) Remarks) hes)	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inche narks: DROLOG land Hydro Primary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely W d Observati ace Water F er Table Pre	es): Cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye	of one is req Imagery (B 'e Surface (I	uired; check Water Aquat True A Hydro Oxidiz Prese Recer Thin N 7) Gauge B8) Other	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plant gen Sulfide (red Rhizosph nce of Reduc 1 Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc Depth (inc) ves (B9) 3) s (B14) Odor (C1) eres on Living ced Iron (C4) tion in Tilled S (C7) a (D9) cemarks) hes)	g Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ bil Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inche narks: DROLOG land Hydro Primary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V d Observati ace Water F er Table Pre- gration Prese	es): Cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) or Crust (B4) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye esent? Ye ent? Ye	Imagery (B ² 'e Surface (I 3 3 3	uired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin M 7) Gauge B8) Other No X No X No X	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant igen Sulfide (2 cd Rhizosph nce of Reduc 1 Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc Depth (inc Depth (inc	 b) 	g Roots (C3 Soils (C6) Wetland	Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _>
Type: Depth (inche harks: DROLOG land Hydro Primary Indic Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely d Observati ace Water F er Table Pre uration Prese udes capilla	es): blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye esent? Ye ent? Ye ary fringe)	Imagery (B' re Surface (I	uired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin N 7) Gauge B8) Other No X No X No X	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide (ed Rhizosph nce of Reduc 1t Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc Depth (inc) ives (B9) 3) s (B14) Odor (C1) eres on Living ced Iron (C4) tion in Tilled S (C7) a (D9) temarks) hes) hes) hes)	g Roots (C3 Soils (C6) Wetland	Hydric Soil Preser	nt? Yes No _ > dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _ >
Type: Depth (inche narks: DROLOG land Hydro Primary India Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V d Observati ace Water F er Table Pre- uration Prese udes capilla cribe Record	es): blogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye esent? Ye ent? Ye ary fringe) ded Data (stream	Imagery (B' 'e Surface (I 's 's gauge, mon	uired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin M 7) Gauge B8) Other No X No X No X No X	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant gen Sulfide C red Rhizosph nce of Reduc 1 Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc Depth (inc Depth (inc) ives (B9) 3) s (B14) Ddor (C1) eres on Living ced Iron (C4) tition in Tilled S e (C7) a (D9) Remarks) hes) hes) hes) previous insp	g Roots (C3 Soils (C6) Wetland	Hydric Soil Preser	nt? Yes No dicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No
Type: Depth (inche narks: DROLOG land Hydro Primary Indic Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely \ d Observati ace Water F er Table Pre- uration Prese udes capilla cribe Record	es): Cators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav ions: Present? Ye esent? Ye ent? Ye ary fringe) ded Data (stream	Imagery (B' 'e Surface (I s s s gauge, mon	uired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin M 7) Gauge B8) Other No X No X No X No X	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant igen Sulfide (ed Rhizosph nce of Reduc 1t Iron Reduc Auck Surface e or Well Dat (Explain in R Depth (inc Depth (inc Depth (inc	e) ives (B9) 3) s (B14) Ddor (C1) eres on Living ced Iron (C4) tion in Tilled S e (C7) a (D9) Remarks) hes) hes) , previous insp	g Roots (C3 Soils (C6) Wetland	Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _>
Project/Site: Lincolnway Industri	ial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015			
--------------------------------------	---------------------------------------	------------------	-----------------------	-----------------------------	-------------------			
Applicant/Owner: Clinton Deve	elopment		State: I/	A Sampling Point:	12			
Investigator(s): M. Leonard, A.	. Cherko		Secti	ion, Township, Range:	S24, T81N, R5E			
Landform (hillslope, terrace, etc.):	Ditch	Local relief (cr	oncave, convex, none)	Concave				
Slope (%): 1-2 Lat:	41.802642	Long:	-90.328568	Datum:	UTM83			
Soil Map Unit Name: 351 - Atterbe	erry silt loam, sandy sustrau	m 0 to 2% slop	es	NWI classification:	None			
Are climatic / hydrologic conditions	on the site typical for this time	of year? Yes	X No	(If no, explain in Remarks))			
Are Vegetation, Soil, c	or Hydrologysignificantl [,]	y disturbed?	Are "Normal Circur	nstances" present? Yes	X No			
Are Vegetation , Soil , c	or Hydrology naturally pr	roblematic?	(If needed, explain	any answers in Remarks.))			
SUMMARY OF FINDINGS -	Attach site map showi	ng samplinç	point locations,	, transects, importar	nt features, etc.			
Hydrophytic Vegetation Present?	Yes X No							
Hydric Soil Present?	Yes X No	Is th	e Sampled Area					
Wetland Hydrology Present?	Yes X No	withi	in a Wetland?	Yes X No	0			
Remarks:		I						
Wetland 4 is a PEMA wetland adjac	cent to driveway in Rail One pa	arking lot.						

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	2	(Δ)
2 3 4				Total Number of Dominant Species Across All Strata:	2	(R)
5	15')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	_
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Echinochloa crus-galli	70	X	FACW	UPL species	x 5 =	_
2. Typha angustifolia	30	Х	OBL	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	. =	
4				Hydrophytic Vegetation Indica	tors:	
5				1 - Rapid Test for Hydrophy	tic Vegetation	
6	·			X 2 - Dominance Test is >50%	, 0	
7		·········		3 - Prevalence Index is <3.0	1	
8				4 - Morphological Adaptation	ns ¹ (Provide suppor	ting
9				 data in Remarks or on a sep 	parate sheet)	-
10				Problematic Hydrophytic Ve	getation ¹ (Explain)	
	100	= Total Cover				
Woody Vine Stratum (Plot size: 30)			¹ Indicators of hydric soil and wetla present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes Present?	Х No	
Remarks: (Include photo numbers here or	on a separate	sheet.)				

PP - 4 West

SOIL

Depth Ma	trix		Redox Feat	tures	commu		
(inches) Color (mois	t) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
be: C=Concentration, D=I	epletion, RM=	=Reduced Matrix, M	IS=Masked	Sand Grai	ns.	² Location: PL=F	Pore Lining, M=Matrix
Hydric Soil Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A1)			Sandy Gle	yed Matrix ((S4)	_Coast P	rairie Redox (A16)
Histic Epipedon (A2)			Sandy Red	lox (S5)		Dark Su	rface (S7)
Black Histic (A3)			Stripped M	atrix (S6)		Iron-Mai	nganese Masses (F12)
Hydrogen Sulfide (A4)			Loamy Mu	cky Mineral	(F1)	Very Sh	allow Dark Surface (TF12)
Stratified Layers (A5)		—	Loamy Gle	yed Matrix	(F2)	X Other (E	xplain in Remarks)
2 cm Muck (A10)			Depleted N	latrix (F3)			,
Depleted Below Dark S	urface (A11)	—	Redox Dar	k Surface (I	F6)		
Thick Dark Surface (A1	2)	—	Depleted D	ark Surface	e (F7)	³ Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (, 51)	—	Redox Dep	oressions (F	-8)	wetlan	d hydrology must be present,
5 cm Mucky Peat or Pe	, at (S3)	—			- /	unless	disturbed or problematic.
Type:	Water Surface o inundation.	Soils assumed hyd	ric due to a	presence	of hydrophy	Hydric Soil Presentic vegetation and	nt? Yes X No hydrology indicators.
Type:	Water Surface o inundation.	Soils assumed hyd	ric due to a	presence o	of hydrophy	Hydric Soil Presei	nt? Yes X No hydrology indicators.
Type:	Water Surface o inundation.	Soils assumed hyd	ric due to a	presence o	of hydrophy	Hydric Soil Presentitic vegetation and	nt? Yes X No
Type:	Water Surface to inundation.	Soils assumed hyd	ric due to a	presence o	of hydrophy	Hydric Soil Presei	hydrology indicators.
Type: Depth (inches): narks: No pit dug due DROLOGY Iand Hydrology Indicato Primary Indicators (minime	Water Surface o inundation.	Soils assumed hyd	ric due to a	presence o	of hydrophy	Hydric Soil Presentitic vegetation and	nt? Yes X No hydrology indicators.
Type: Depth (inches): Darks: No pit dug due DROLOGY Iand Hydrology Indicator Primary Indicators (minimu X_Surface Water (A1)	Water Surface to inundation.	Soils assumed hyd	ric due to a	presence of s (B9)	of hydrophy	Hydric Soil Presentitic vegetation and	hydrology indicators.
Type:	Water Surface o inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa	ric due to a at apply) ned Leaves una (B13)	presence of s (B9)	of hydrophy	tic vegetation and <u>Secondary Ind</u> Surface Sc X Drainage F	hydrology indicators. hydrology indicators. dicators (minimum of two requ il Cracks (B6) Patterns (B10)
Type:	Water Surface to inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua	ric due to a at apply) ned Leaves una (B13) tic Plants (E	presence of s (B9) 314)	of hydrophy	Hydric Soil Present tic vegetation and Secondary Ind Surface So X Drainage F Dry-Seaso	hydrology indicators. hydrology indicators. dicators (minimum of two required il Cracks (B6) Patterns (B10) n Water Table (C2)
Type: Depth (inches): Depth (inches): Darks: No pit dug due DROLOGY Iand Hydrology Indicator Primary Indicators (minimul X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water Surface to inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua True Aqua	ric due to a at apply) ned Leaves una (B13) tic Plants (E Sulfide Odc	s (B9) B14)	of hydrophy	Hydric Soil Present tic vegetation and Secondary Ind Surface So X Drainage F Dry-Seaso Crayfish Bu	hydrology indicators. hydrology indicators. dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)
Type:	Water Surface to inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua Hydrogen S	ric due to a at apply) ned Leaves una (B13) tic Plants (E Sulfide Odc hizosphere	s (B9) 314) or (C1) so n Living	of hydrophy Roots (C3)	Hydric Soil Present tic vegetation and Secondary Ind Surface So X Drainage F Dry-Season Crayfish Bu Saturation	hydrology indicators. hydrology indicators. dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Type:	Water Surface to inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua Hydrogen 3 Oxidized R Oxidized R	ric due to a at apply) ned Leaves una (B13) tic Plants (B Sulfide Odc hizosphere of Reduced	s (B9) 314) or (C1) son Living Iron (C4)	of hydrophy Roots (C3)	Hydric Soil Presentitic vegetation and Secondary Ind Surface So X Drainage F Dry-Seaso Crayfish Bu Saturation Stunted or	hydrology indicators. dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
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trictive Layer (if observe Type: Depth (inches): marks: No pit dug due DROLOGY tland Hydrology Indicato Primary Indicators (minimu X Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co d Observations: face Water Present? ter Table Present?	Water Surface o inundation.	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R Presence o Recent Iroo Thin Muck B7) Gauge or V (B8) Other (Exp	ric due to a at apply) ned Leaves una (B13) tic Plants (B Sulfide Odc hizosphere of Reduced n Reductior Surface (C Vell Data (I lain in Rem	s (B9) 314) or (C1) s on Living Iron (C4) n in Tilled S 7) D9) harks) 3) <u>4"</u>	Roots (C3)	Hydric Soil Presentitic vegetation and tic vegetation and Secondary Import Surface Soc X Drainage F Dry-Season Crayfish But Saturation Stunted or Geomorphi X FAC-Neutr	hydrology indicators. hydrology indicators. dicators (minimum of two requ iil Cracks (B6) Patterns (B10) n Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
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Image: Control of the second diagram in the second diagra	Water Surface io inundation. rs: Im of one is re raial Imagery (acave Surface Yes X Yes Yes Yes mode Yes	Soils assumed hyd equired; check all th Water-Stai Aquatic Fa True Aqua Hydrogen 3 Oxidized R Presence 0 Recent Iro Thin Muck B7) Gauge or V (B8) Other (Exp No X De No X De No X De	ric due to a at apply) ned Leaves una (B13) tic Plants (E Sulfide Odc hizosphere of Reduced n Reductior Surface (C Vell Data (I lain in Rem opth (inches opth (inches photos, pre-	presence of s (B9) 314) or (C1) son Living Iron (C4) n in Tilled S 7) D9) narks) airks) airks)	Roots (C3) Soils (C6) Wetland	Hydric Soil Preser tic vegetation and	hydrology indicators. hydrology indicators. dicators (minimum of two requind and the second
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Project/Site: Lincolnv	way Industria	al Rail		City/Co	unty:	Clintor	n County		Sampling Date:	1	1/10/2015
Applicant/Owner: 0	Clinton Deve	elopment					State:	IA	Sampling Point:		13
Investigator(s): M.	Leonard, A.	Cherko					S	ectior	n, Township, Range:	S24,	T81N, R5E
Landform (hillslope, ter	race, etc.):	Ditch		Local re	lief (c	oncave,	convex, no	ne):	Concave		
Slope (%): 1-2	Lat:	41.802626		Long:		-90.	.328336		Datum:	UTM	83
Soil Map Unit Name: 3	351 - Atterbe	rry silt loam, sar	ndy sus	traum 0 to 2%	slop	es		N	WI classification:		None
Are climatic / hydrologic	c conditions o	on the site typical	for this	time of year?	Yes	Х	No	(If	no, explain in Remarks	5)	
Are Vegetation,	Soil, o	r Hydrology	signifi	cantly disturbe	d?	Are	"Normal Cir	cums	tances" present? Yes	Х	No
Are Vegetation ,	Soil , o	r Hydrology	natura	Ily problematio	?	(lf ne	eeded, expl	ain ar	ny answers in Remarks.)	
SUMMARY OF FI	NDINGS -	Attach site m	ap sh	owing sam	pling	g poin [.]	t locatio	ns, t	ransects, importa	nt fea	atures, etc.
Hydrophytic Vegetation	Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	Is th	e Samp	led Area				
Wetland Hydrology Pre	sent?	Yes	No	Х	with	in a We	tland?		Yes N	lo	X
Remarks:											
Outpoint for SP 12											
VEGETATION - U	se scientif	fic names of p	olants								

Status Number of Dominant Species Across All Strate Total Number of Domin Species Across All Strate Percent of Dominant Species Across All Strate OBL species FACW species	pecies That AC: 0 hant hata: 1 becies or FAC: 0% ksheet: er of: Multiply by	(A) (B) (A/B)
Are OBL, FACW, or FA Total Number of Domin Species Across All Stra Percent of Dominant Sp That Are OBL, FACW, or Prevalence Index wor Total % Cove OBL species FACW species	AC: 0 hant hata: 1 becies or FAC: 0% ksheet: er of: Multiply by	(A) (B) (A/B)
Total Number of Domin Species Across All Stra Percent of Dominant Sp That Are OBL, FACW, of Prevalence Index worl Total % Cove OBL species FACW species	hant ata: 1 pecies or FAC: 0% ksheet: at of: Multiply by	(B) (A/B)
Total Number of Domin Species Across All Stra Percent of Dominant Sp That Are OBL, FACW, of Prevalence Index wor Total % Cove OBL species FACW species	ant ata: 1 pecies or FAC: 0% ksheet: er of: Multiply by	(B) (A/B)
Species Across All Stra Percent of Dominant Sp That Are OBL, FACW, Prevalence Index wor Total % Cove OBL species FACW species	ata: 1 pecies or FAC: 0% ksheet: er of: Multiply by	(B) (A/B)
Percent of Dominant Sp That Are OBL, FACW, Prevalence Index wor Total % Cove OBL species FACW species	becies or FAC: 0% ksheet: er of: Multiply by	(A/B)
Percent of Dominant Sp That Are OBL, FACW, we Prevalence Index wor Total % Cove OBL species FACW species	pecies or FAC: 0% ksheet: er of: Multiply by	(A/B)
That Are OBL, FACW, Prevalence Index work Total % Cove OBL species FACW species	or FAC: 0% ksheet: ar of: Multiply by	(A/B)
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Prevalence Index wor Total % Cove OBL species FACW species	ksheet: ar of: Multiply by	
Total % Cove OBL species FACW species	er of: Multiply by	
OBL species FACW species		/:
FACW species	x 1 =	
	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL UPL species	x 5 =	
Column Totals:	(A)	(B)
Prevalence	e Index = B/A =	
Hydrophytic Veget	ation Indicators:	
1 - Rapid Test 1	for Hydrophytic Vegetation	
2 - Dominance	Test is >50%	
3 - Prevalence	Index is <u><</u> 3.0 ¹	
4 - Morphologic	al Adaptations ¹ (Provide supp	orting
data in Remark	s or on a separate sheet)	
Problematic Hy	<pre>/drophytic Vegetation1 (Explain</pre>	ו)
¹ Indicators of hydric present, unless distu	soil and wetland hydrology mu Irbed or problematic.	ist be
Hydrophytic		
Vegetation	Yes No X	
		_
	4 - Morphologic data in Remark Problematic Hy ¹ Indicators of hydric present, unless distu Hydrophytic Vegetation Present?	

Depth	WathA			Подол	- outure						
inches)	Color (moist)	%	Color (mo	oist) %	, 	Type ¹	Loc ²	Texture		Rema	rks
0-20	10 YR 3/2	100						Clay Loam			
									_		
be: C=Cond	centration, D=Deple	tion, RM=	Reduced Ma	trix, MS=Ma	sked Sa	and Grair	IS.	² Location: PI	.=Pore Lir	ning, M=Ma	trix
lydric Soil	Indicators:							Indicators	for Prob	lematic Hy	dric Soils ³ :
Histosol ((A1)			Sandv	Gleved	d Matrix (S4)	Coas	t Prairie F	Redox (A16)	
Histic Ep	ipedon (A2)			Sandv	Redox	(S5)	- /	 Dark	Surface (S7)	
- Black His	tic $(\Delta 3)$			Strippe	n Matri	(00) ix (S6)			Manganes	e.) Angeorge (F12)
						(00)	(54)		Challow F		(TE12)
- Stratified				Loom		d Motrix ((FI) E2)		Shallow L	in Pomorko))
	Layers (A3)					u iviatilix (·∠)		(∟xpiain	TREMAIKS	1
		- () ()			eu Matr	⊓x (F3) Sumfers (F					
	Below Dark Surfac	e (A11)		Redox	Dark S	Surface (F	.6)	3			
- Thick Dai	rk Surface (A12)			Deplet	ed Dark	k Surface	e (F7)	Indicat	ors of hyd Iand hydr	rophytic veg	jetation and
_Sandy M	ucky Mineral (S1)			Redox	Depres	ssions (F	8)	unk	ess distur	bed or probl	ematic.
5 cm Muo	cky Peat or Peat (S	3)									
trictive Lay	yer (if observed):							Hydric Soil Pre	sent? Y	/es	No
trictive Lay	es):							Hydric Soil Pre	sent? Y	′es	No
trictive Lay	yer (if observed): es):							Hydric Soil Pre	sent? Y	/es	_ No _)
trictive Lay	GY							Hydric Soil Pre	sent? Y	/es	No
trictive Lay Type: Depth (incher Darks: DROLOG Iand Hydro Primary Indi	SY Control Con	one is re	quired; check	c all that app	y)			Hydric Soil Pre	sent? Y	s (minimum	No
trictive Lay Type: Depth (incher narks: DROLOC land Hydro Primary Indi Surface V	SY Cology Indicators: Cology Indicators: Cology (Mater (A1))	one is re	equired; check	all that app	y) aves (B	39)		Hydric Soil Pre	sent? Y	res s (minimum ks (B6)	No
trictive Lay ype: Depth (incho marks: DROLOC land Hydro Primary Indi Surface V High Wat	GY Comparison of the text of t	one is re	quired; check Wate Aqua	all that app r-Stained Le titc Fauna (B	y) aves (B 13)	39)		Hydric Soil Pre	sent? Y Indicator Soil Crac e Patterns	'es s (minimum ks (B6) s (B10)	No
trictive Lay Type: Depth (inchor narks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio	GY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3)	one is re	equired; check Wate Aqua True	all that app r-Stained Le tic Fauna (B Aquatic Plar	y) aves (B 13) nts (B14	39)		Hydric Soil Pre	Indicator Soil Crac e Patterns son Wate	s (minimum ks (B6) s (B10) er Table (C2	No of two requ
trictive Lay Type: Depth (inchor Depth (inch	Comparison of the served of th	one is re	equired; check Wate Aqua True Hydr	all that app r-Stained Le ttic Fauna (B Aquatic Plar ogen Sulfide	y) aves (B 13) nts (B14 Odor (C	39) 4) C1)		Hydric Soil Pre	Indicator Soil Crac e Patterns son Wate Burrows	res s (minimum ks (B6) s (B10) er Table (C2 (C8)	No)
trictive Lay Type: Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment	SY Dology Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	one is re	equired; check Wate Aqua True Hydru Oxidi	all that app r-Stained Le titic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp	y) aves (B 13) nts (B14 Odor (C heres o	39) 4) C1) on Living	Roots (C3	Hydric Soil Pre	Indicator Soil Crac e Patterns son Wate Burrows on Visible	s (minimum ks (B6) s (B10) er Table (C2 (C8) e on Aerial Ir	No of two requ) nagery (C9
trictive Lay Type: Depth (incher Depth (incher)) Depth (incher Depth (incher)) Depth (incher Depth (incher)) Depth (incher) Depth (incher)) Depth (incher) Depth (incher)) Depth (incher) Depth (incher)) Depth (incher)) Dep	GY Dlogy Indicators: iccators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	one is re	equired; check Wate Aqua True Hydri Oxidi Prese	all that app er-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu	y) aves (B 13) tts (B14 Odor (C heres o uced Iro	39) 4) C1) on Living on (C4)	Roots (C3	Hydric Soil Pre	Indicator Soil Crac e Patterns son Wate Burrows on Visible or Stress	s (minimum ks (B6) s (B10) er Table (C2 (C8) o on Aerial Ir ed Plants (I	No
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trictive Lay Type: Depth (inchore) Depth (inchore) De	BY BOIGHT IN CONSERVED BY BOIGHT INCOMPANY BOIGHT INCOMPANY B	one is re	equired; check Wate Aqua True Hydru Presu Rece Thin	all that app r-Stained Le Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu unt Iron Redu Muck Surfac	y) aves (B 13) hts (B14 Odor (C heres o uced Iro ction in e (C7)	39) 4) C1) on Living on (C4) on Tilled So	Roots (C3	Hydric Soil Pre	Indicator Soil Crac e Patterns son Wate Burrows on Visible or Stress phic Posi utral Test	s (minimum ks (B6) s (B10) r Table (C2 (C8) o on Aerial Ir ed Plants (I tion (D2) : (D5)	No
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Project/Site: Lincolnwa	y Industrial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Cli	inton Development		State: IA	Sampling Point:	19
Investigator(s): M. Le	onard, A. Cherko		Section	n, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrad	ce, etc.): Swale	Local relief (c	oncave, convex, none):	Concave	
Slope (%): 2-3 La	at: 41.803688	Long:	-90.328337	Datum:	UTM83
Soil Map Unit Name: 91	8 - Garwin silty clay loam,	sandy substratum, 0 to 2%	% slopes N	WI classification:	None
Are climatic / hydrologic c	conditions on the site typica	for this time of year? Yes	X No (I	f no, explain in Remarks)
Are Vegetation, S	oil, or Hydrology	significantly disturbed?	Are "Normal Circums	stances" present? Yes	X No
Are Vegetation , S	oil , or Hydrology	naturally problematic?	(If needed, explain a	ny answers in Remarks.)
SUMMARY OF FINE	DINGS - Attach site n	nap showing sampling	g point locations, t	ransects, importar	nt features, etc.
Hydrophytic Vegetation P	resent? Yes X	No			
Hydric Soil Present?	Yes X	No Is th	e Sampled Area		
Wetland Hydrology Prese	ent? Yes X	No with	in a Wetland?	Yes <u>X</u> N	o
Remarks:					
Wetland 5 is a PEMA wet	tland in an agricultural field	drainage. Drains to wetland	behind Rail One facility.		

VEGETATION - Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
1(FIOUSIZE)	% Cover	Species?	Status	Are OBL, FACW, or FAC:	1	(A)
2 3 4				Total Number of Dominant Species Across All Strata:	1	(B)
5. <u>Sapling/Shrub Stratum</u> Plot size:		= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	_
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Phalaris arundinacea	95	X	FACW	UPL species	x 5 =	
2. Persicaria sp.	5		UPL-OBL	Column Totals:	(A)	(B)
3				Prevalence Index = B/A	. =	
4				Hydrophytic Vegetation Indica	tors:	
5				1 - Rapid Test for Hydrophy	tic Vegetation	
6				X 2 - Dominance Test is >50%	, D	
7				3 - Prevalence Index is ≤3.0	1	
8 9.				4 - Morphological Adaptation	ns ¹ (Provide suppor parate sheet)	ting
10.				Problematic Hydrophytic Ve	getation ¹ (Explain)	
	100	= Total Cover			J	
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetla present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	er	Hydrophytic Vegetation Yes Present?	Х №	-
Remarks: (Include photo numbers here or o	n a separate	sheet.)				

PP 5 - North

Depth	Matrix			Readwin	cataroo	^		
(inches)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 2/1	100					Clay Loam	
							·	
/pe: C=Conc	entration, D=Deple	tion, RM=F	Reduced Mat	trix, MS=Masł	ked Sand Grai	ins.	² Location: PL=	=Pore Lining, M=Matrix
Hydric Soil I	ndicators:						Indicators	for Problematic Hydric Soils ³ :
Histosol (/	A1)			Sandy C	Bleyed Matrix	(S4)	Coast	Prairie Redox (A16)
Histic Epi	oedon (A2)			Sandy F	Redox (S5)		Dark S	Surface (S7)
Black Hist	tic (A3)			Stripped	Matrix (S6)		 Iron-M	langanese Masses (F12)
Hydrogen	Sulfide (A4)				Mucky Mineral	l (F1)		Shallow Dark Surface (TE12)
Stratified	avers (A5)				Gleved Matrix	(F2)	X Other	(Explain in Remarks)
2 cm Muc	k (A10)			Deplete	d Matrix (F3)	()		
	R (7110) Below Dark Surfac	o (A11)			a Matrix (1 0) Dark Surface (1	F6)		
	k Surfood (A12)	e (ATT)			d Dork Surfoo	C (E7)	³ Indianta	re of hydrophytic vocatation and
				Depiete		e (F7)	wetl	and hydrology must be present.
	icky Mineral (S1)			Redox L	Depressions (F	-8)	unle	ss disturbed or problematic.
	ky Peat or Peat (S	3)						
strictive Lay	er (if observed):							
Туре:								
Depth (inche	es):						Hydric Soil Pres	ent? Yes X No
Depth (inche marks: e procedure c a was a weth	s): described in the Mi	dwest Reg	ion USACE [Delineation Ma for problema	anual, Chapte	r 5, page 1	Hydric Soil Pres	to evaluate soils to determine th
Depth (inche marks: e procedure c ea was a wetta esent. The are oblematic soil:	s): described in the Mi and. The soils at th ea is located in a la s is present (Part 4	dwest Regi is site mee ndscape p b6-Other, s	ion USACE I et the criteria osition that is soils disturbe	Delineation Ma for problema s likely to colle ed due to farm	anual, Chapte tic hydric soils ect or concent ing practices)	r 5, page 1 s, as indica rate water s, therefore	Hydric Soil Pres 113-117, was used tors of hydrophyti (Part 3a - concav the soils in this a	the evaluate soils to determine the c vegetation and hydrology are resurface). The following indicate rea should be considered hydric.
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Depth (inche marks: e procedure of ea was a weth esent. The are oblematic soil: YDROLOG etland Hydro	es): described in the Mi and. The soils at th ea is located in a la s is present (Part 4 Y logy Indicators:	dwest Reg is site mee ndscape p b6-Other, s	ion USACE I et the criteria osition that is soils disturbe	Delineation Ma for problema s likely to colle ad due to farm	anual, Chapte tic hydric soils ect or concent ing practices)	r 5, page 1 s, as indica rate water l, therefore	Hydric Soil Pres	eent? Yes X No d to evaluate soils to determine th c vegetation and hydrology are re surface). The following indicate rea should be considered hydric.
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Project/Site: Lincol	nway Industr	ial Rail		City/Co	unty: Clint	on County		Sampling Date:	1	11/10/2015
Applicant/Owner:	Clinton Dev	elopment				State:	IA	Sampling Point:		20
Investigator(s): M	. Leonard, A	. Cherko				Se	ection	, Township, Range:	S24,	T81N, R5E
Landform (hillslope, te	errace, etc.):	Swale		Local re	lief (concav	e, convex, no	ne):	Concave		
Slope (%): 2-3	Lat:	41.803906		Long:	-	90.328351		Datum:	UTM	83
Soil Map Unit Name:	918 - Garwi	n silty clay loam,	sandy s	substratum, 0	to 2% slop	es	N۷	VI classification:		None
Are climatic / hydrolog	gic conditions	on the site typical	for this	time of year?	Yes X	No	(If	no, explain in Remarks	;)	
Are Vegetation	, Soil,	or Hydrology	signifi	cantly disturbe	d? Ai	e "Normal Cir	cumst	ances" present? Yes	Х	No
Are Vegetation	, Soil , o	or Hydrology	natura	ally problematic	? (If	needed, expla	ain an	y answers in Remarks.)	
SUMMARY OF F	INDINGS -	Attach site m	ap sh	owing sam	pling po	int location	ns, tr	ansects, importa	nt fea	atures, etc.
Hydrophytic Vegetatio	on Present?	Yes	No	Х						
Hydric Soil Present?		Yes	No	Х	Is the Sar	npled Area				
Wetland Hydrology P	resent?	Yes	No	Х	within a V	Vetland?		Yes N	•	X
Remarks: Outpoir	nt for SP 19				8					
VEGETATION - U	Jse scient	ific names of p	olants							

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Iree Stratum (Plot size:30') 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
234				Total Number of Dominant Species Across All Strata:	1	(B)
5 Sapling/Shrub Stratum Plot size:1	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	0%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Bromus inermis	100	Х	FACU	UPL species	x 5 =	
2.				Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	=	_
4				Hydrophytic Vegetation Indicate	ors:	
5				1 - Rapid Test for Hydrophyti	c Vegetation	
6				2 - Dominance Test is >50%	Ū	
7				3 - Prevalence Index is <3.0 ¹		
8 9				4 - Morphological Adaptation data in Remarks or on a sep	s ¹ (Provide suppor arate sheet)	ting
10.				Problematic Hydrophytic Veg	getation ¹ (Explain)	
	100	= Total Cover		—		
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology must ematic.	: be
2.				Hydrophytic		
		= Total Cove	er	Vegetation Yes Present?	<u>No X</u>	-

Depth	IVIALITA							
(inches)	Color (moist)	%	Color (moi	st) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 2/2	100					Clay Loam	
					<u></u>			
be: C=Cond	centration. D=Depl	etion. RM=R	educed Matr	ix. MS=Maske	d Sand Grai	ns.	² Location: PL=Po	ore Lining. M=Matrix
	Indicators:			,		-	Indicators for	Problematic Hydric Soils ³ :
Histosol ((A1)			Sandy Cle	aved Matrix ((\$4)	Coast Pr	airie Redox (A16)
Listic En	inodon (A2)			Sandy Bo	dox (SE)	(04)	Dark Sur	
				Sanuy Re				
	STIC (A3)				Viatrix (S6)			ganese Masses (F12)
Hydroger	n Sulfide (A4)			Loamy Mu	ucky Mineral	(F1)	Very Sha	llow Dark Surface (TF12)
Stratified	Layers (A5)			Loamy Gl	eyed Matrix	(F2)	Other (E)	(plain in Remarks)
2 cm Muo	ck (A10)			Depleted	Matrix (F3)			
Depleted	Below Dark Surfa	ce (A11)		Redox Da	rk Surface (I	F6)	2	
Thick Da	rk Surface (A12)			Depleted	Dark Surface	e (F7)	³ Indicators of	of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)			Redox De	pressions (F	-8)	unless	disturbed or problematic
5 cm Mu	cky Peat or Peat (S	S3)					dillood	
Type: Depth (inche	es):					Ну	dric Soil Presen	t? Yes No
Type: Depth (inche narks:	es):					ну	rdric Soil Presen	t? Yes NoX
Type: Depth (incho narks: DROLOG	es):					ну	rdric Soil Presen	t? Yes <u>No X</u>
Type: Depth (incho narks: DROLOC	es): SY blogy Indicators:					ну	rdric Soil Presen	t? Yes <u>No X</u>
Type: Depth (inche narks: DROLOC tland Hydro Primary Indi	es): SY blogy Indicators: icators (minimum of	of one is requ	uired; check a	all that apply)		ну	dric Soil Presen	t? Yes <u>No X</u>
Type: Depth (inchon narks: DROLOC tland Hydroc Primary Indi Surface V	GY blogy Indicators: icators (minimum of Water (A1)	of one is requ	uired; check a	all that apply) Stained Leave	es (B9)	ну	rdric Soil Presen	t? Yes <u>No X</u> icators (minimum of two requi
Type: Depth (incho narks: DROLOC tland Hydro Primary Indi Surface V High Wat	ESY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2)	of one is requ	uired; check a	all that apply) -Stained Leave c Fauna (B13)	es (B9)	ну	dric Soil Presen	t? Yes NoX
Type: Depth (inche narks: DROLOC tland Hydro Primary Indi Surface V High Wat Saturatio	ESY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3)	of one is requ	uired; check a Water Aquati True A	all that apply) -Stained Leave c Fauna (B13) .quatic Plants (es (B9) (B14)	ну	Secondary Ind Surface Soi Drainage Pa	t? Yes NoX
Type: Depth (inchenners: DROLOC tland Hydroc Primary Indi Surface V High Wat Saturatio Water Ma	BY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1)	of one is requ	uired; check a Water Aquati True A Hydrog	all that apply) Stained Leave c Fauna (B13) iquatic Plants i gen Sulfide Od	es (B9) (B14) lor (C1)	ну	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu	t? Yes <u>No X</u> icators (minimum of two requi l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
Type: Depth (inchon narks: DROLOC tland Hydroc Primary Indi Surface V High Wat Saturatio Water Ma Sedimenti	GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	of one is requ	uired; check a Water Aquati True A Hydrog	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Od ed Rhizospher	es (B9) (B14) lor (C1) es on Living	Roots (C3)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V	t? Yes <u>No X</u> icators (minimum of two requi l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9)
Type: Depth (incho narks: DROLOC tland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Depo	GY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	of one is requ	uired; check a Water Aquati True A Hydrog Oxidiz Preser	all that apply) Stained Leave c Fauna (B13) quatic Plants of gen Sulfide Od ed Rhizospher nce of Reduced	es (B9) (B14) lor (C1) es on Living d Iron (C4)	Roots (C3)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S	t? Yes NoX icators (minimum of two requi l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1)
Type: Depth (inchernarks: DROLOC tland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat	ESY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	of one is requ	uired; check a Water Aquati True A Hydrog Oxidiz Preser Recen	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Od ed Rhizospher nce of Reduce t Iron Reductic	es (B9) (B14) lor (C1) es on Living d Iron (C4) on in Tilled S	Roots (C3)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S Geomorphic	t? Yes NoX icators (minimum of two requi l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2)
Type: Depth (inchernarks: DROLOC tland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Depu Algal Mat Iron Depo	BY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) posits (B5)	of one is requ	uired; check a Water Aquati True A Hydrog Oxidiz Preser Recen Thin M	all that apply) Stained Leave c Fauna (B13) quatic Plants o gen Sulfide Od ed Rhizospher nce of Reduced t Iron Reductio luck Surface ((es (B9) (B14) lor (C1) es on Living d Iron (C4) on in Tilled S C7)	Roots (C3)	Secondary Ind Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S Geomorphic FAC-Neutra	t? Yes NoX icators (minimum of two requi l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)
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Type: Depth (incher narks: DROLOC tland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Dept Algal Mat Iron Dept Inundatio Sparsely	ESY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav	of one is required in the second seco	uired; check a Water Aquati True A Hydrog Oxidiz Preser Recen Thin M 7) Gauge 38) Other	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Od ed Rhizospher nce of Reduced t Iron Reductic luck Surface ((e or Well Data	es (B9) (B14) lor (C1) es on Living d Iron (C4) on in Tilled S C7) (D9) marks)	Roots (C3)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S Geomorphic FAC-Neutra	t? Yes NoX icators (minimum of two requi I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) //isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)
Type: Depth (incher narks: DROLOO tland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sedimen Drift Depu Algal Mat Iron Depo Inundatio Sparsely d Observat	BY Diogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav tions:	of one is requ Imagery (B7 re Surface (E	uired; check a Water Aquati True A Hydrog Oxidiz Preser Recen Thin M 7) Gauge 38) Other	all that apply) Stained Leave c Fauna (B13) quatic Plants o gen Sulfide Od ed Rhizospher nce of Reduced t Iron Reductio luck Surface (e or Well Data (Explain in Rer	es (B9) (B14) lor (C1) es on Living d Iron (C4) on in Tilled S C7) (D9) marks)	Roots (C3) Soils (C6)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation \ Stunted or S Geomorphic FAC-Neutra	t? Yes NoX icators (minimum of two requ l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)
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Project/Site: Lincolnway Industrial Rail	City/County:	Clinton Co	ounty	Sampling Date:	11/10/2015
Applicant/Owner: Clinton Development			State: IA	Sampling Point:	21
Investigator(s): M. Leonard, A. Cherko			Sectio	on, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, etc.): Ditch	Local relief (c	oncave, cor	nvex, none):	Concave	
Slope (%): 1-3 Lat: 41.803462	Long:	-90.326	6783	Datum:	UTM83
Soil Map Unit Name: 284B - Flagler sandy loam, 1 to 5% slope	s			NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	ΧN	0	If no, explain in Remarks)	
Are Vegetation, Soil, or Hydrologysignificantly	y disturbed?	Are "No	rmal Circum	stances" present? Yes	X No
Are Vegetation , Soil , or Hydrology naturally pr	oblematic?	(If need	ed, explain a	any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map show	ing samplir	ng point l	locations	, transects, importa	ant features, etc.
Hydrophytic Vegetation Present? Yes X No					
Hydric Soil Present? Yes X No	- Is th	e Sampled	Area		
Wetland Hydrology Present? Yes X No	with	in a Wetlan	d?	Yes X No	o
Remarks: Wetland 2 is a PEMA wetland in trackside ditch that bed and bank or a OHWM near this SP.	drains to Wetla	and 6 via a	culvert unde	r the track. Channel 2 no	longer has

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30'</u>) 1.	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
2. 3. 4. 5				Total Number of Dominant Species Across All Strata:	1	(B)
Sapling/Shrub Stratum Plot size: 15	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	—
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Phalaris arundinacea	80	X	FACW	UPL species	x 5 =	
2. Typha angustifolia	10	_	OBL	Column Totals:	(A)	(B)
3. Urtica dioica	10		FACW	Prevalence Index = B/A	=	
4				Hydrophytic Vegetation Indicat	ors.	
5				1 - Rapid Test for Hydrophyt	ic Vegetation	
6				\overline{X} 2 - Dominance Test is >50%	,	
7				3 - Prevalence Index is <3.0	1	
8				4 - Morphological Adaptation	erovide suppor ا	rtina data
9.				in Remarks or on a separate	sheet)	
10.				Problematic Hydrophytic Veç	getation ¹ (Explain)	
	100	= Total Cover		-		
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	Ind hydrology must ematic.	be
2		= Total Cove)r	Hydrophytic Vegetation Yes	X No	_

nches)								
~ -	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10 YR 2/1	100					Clay Loam	
: C=Cor	centration. D=Der	oletion. RM=	=Reduced Matrix.	MS=Masked S	Sand Graii	ns.	² Location: PL=F	ore Lining. M=Matrix
dric Soi							Indicators fo	r Problematic Hydric Soils ³
				Condy Clave	d Motrix /		Coost D	
	(AI)		_			54)	Coast P	
			_		(35)		Dark Su	nace (57)
Black Hi	stic (A3)		-	Stripped Mati	rix (S6)		Iron-Mai	nganese Masses (F12)
Hydroge	en Sulfide (A4)		_	Loamy Mucky	y Mineral	(⊢1) ⊏o)	Very Sh	allow Dark Surface (TF12)
Stratified	a Layers (A5)		_	Loamy Gleye	ed Matrix (F2)	A Other (E	xpiain in Remarks)
∠ cm Mu	іск (А10)		_	- Depleted Mat	unx (F3) 0(-0)		
Deplete	a Below Dark Surf	ace (A11)	_	- Redox Dark S	Surface (F	·6)	3	a Charachard an an Arristan an Arristan
I NICK Da	ark Surface (A12)		_	Depleted Dar	rk Surface	e (F7)	Indicators	or nydrophytic vegetation and
Sandy N	ucky Mineral (S1)		_	Redox Depre	essions (F	8)	unless	disturbed or problematic.
5 cm Mu	ICKY Peat or Peat	53)						·
ictive La	ayer (if observed)							
/pe:								
epth (inch	nes):					i	Hydric Soil Preser	nt? Yes X No
arks: procedure was a we area is loo lematic so	e described in the l tland. The soils at cated in a landsca ils is present (Par	Midwest Re this site me be position t t 4b4-Seaso	gion USACE Deli eet the criteria for that is likely to col onally Ponded Soi	neation Manua problematic hy lect or concent ils), therefore th	al, Chapter /dric soils, trate water he soils in	r 5, page 1 as indicat r (Part 3a - this areas	13-117, was used ors of hydrophytic concave surface). should be consider	to evaluate soils to determine th regetation and hydrology are pr The following indicator of ed hydric.
arks: procedure was a we area is loc ematic sc	e described in the tland. The soils at cated in a landsca ils is present (Par	Midwest Re this site me be position t t 4b4-Seasc	gion USACE Deli eet the criteria for that is likely to col onally Ponded Soi	neation Manua problematic hy lect or concent ils), therefore th	al, Chapter vdric soils, trate water he soils in	r 5, page 1 as indicat r (Part 3a - this area s	13-117, was used ors of hydrophytic concave surface). should be consider	to evaluate soils to determine th vegetation and hydrology are pr The following indicator of ed hydric.
arks: procedure was a we rea is loo ematic sc DROLO	e described in the l ttland. The soils at cated in a landsca bils is present (Par	Midwest Re this site me be position t t 4b4-Seasc	gion USACE Deli eet the criteria for that is likely to col onally Ponded Soi	neation Manua problematic hy lect or concent ils), therefore th	al, Chapter /dric soils, trate water he soils in	r 5, page 1 as indicat r (Part 3a - this area s	13-117, was used ors of hydrophytic concave surface). should be consider	to evaluate soils to determine th vegetation and hydrology are pr The following indicator of ed hydric.
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Project/Site: Lincolnwa	y Industrial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clir	nton Development		State: IA	Sampling Point:	22
Investigator(s): M. Le	onard, A. Cherko		Section	ı, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrac	ce, etc.): Ditch	Local relief (d	concave, convex, none):	Concave	
Slope (%): 1-3 La	it: 41.803442	Long:	-90.326675	Datum:	UTM83
Soil Map Unit Name: 284	IB - Flagler sandy loam, 1 to	5% slopes	N	WI classification:	None
Are climatic / hydrologic c	onditions on the site typical fc	or this time of year? Yes	X No (If	no, explain in Remarks))
Are Vegetation, So	oil, or Hydrology	significantly disturbed?	Are "Normal Circums	tances" present? Yes	X No
Are Vegetation, Se	oil , or Hydrology	naturally problematic?	(If needed, explain ar	ny answers in Remarks.))
SUMMARY OF FIND	JINGS - Attach site ma	p showing samplin	g point locations, t	ransects, importar	nt features, etc.
Hydrophytic Vegetation Pr	resent? Yes	No X			
Hydric Soil Present?	Yes	No X Is th	he Sampled Area		
Wetland Hydrology Prese	nt? Yes	No X with	nin a Wetland?	Yes No	» <u>Х</u>
Remarks:		I			
Outpoint for SP 21. The ra	ailroad ditch has flattened out	and the elevation is incre	asing to the east.		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
1 2				Are OBL, FACW, or FAC:	0	(A)
3.		·		Total Number of Dominant		
4		<u> </u>		Species Across All Strata:	1	(B)
5		= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size: 15	5')			That Are OBL, FACW, or FAC:	0%	(A/B)
1. 2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4				OBL species	x 1 =	
5				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Festuca arundinacea	95	X	UPL	UPL species	x 5 =	
2. Rumex crispus	5		FAC	Column Totals:	(A)	(B)
3				Prevalence Index = B/A	=	_
4		<u> </u>		Hydrophytic Vegetation Indicat	ors:	
S				1 - Rapid Test for Hydrophyt	ic Vegetation	
o		<u> </u>		2 - Dominance Test is >50%)	
/				3 - Prevalence Index is <3.0	1	
8 9.		<u> </u>		4 - Morphological Adaptation	ns ¹ (Provide suppor parate sheet)	ting
10				Problematic Hydrophytic Ver	netation ¹ (Explain)	
	100	- Total Cover	,	— · · · · · · · · · · · · · · · · · · ·	gerarieri (_ripiari)	
Woody Vine Stratum (Plot size: 30'	_)			¹ Indicators of hydric soil and wetla present, unless disturbed or probl	and hydrology must ematic.	be
2		= Total Cover		Hydrophytic Vegetation Yes Present?	No_X	
Remarks: (Include photo numbers here or on	a separate	sheet.)				

(inches) Colo 0-22 10 0-22 10 pe: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea strictive Layer (if of Type: Depth (inches): marks:	(moist) % YR 2/1 90 Image: state of the state of	Color (moist) 10 YR 4/6	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	Type ¹ I C C Sand Grains. C Sand Grains. C C C C C C C C C C C C C C C C C C C	Loc ² Texture M Clay Loan Clay Loan P Clay Loan P Cl	Remarks n n n n n n n n n n n n n n n PL=Pore Lining, M=Matrix rrs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
0-22 10	YR 2/1 90 YR 2/1 90 90 90	10 YR 4/6	10 MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark S Depleted Dal Redox Depre	C C C C C C C C C C C C C C	M Clay Loan	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ier (Explain in Remarks)
be: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea strictive Layer (if ol Type: Depth (inches): narks:	n, D=Depletion, RM brs: A2) (A4) (A4) (A5) Park Surface (A11) xe (A12) eral (S1) or Peat (S3) bserved):	=Reduced Matrix,	MS=Masked S Sandy Gleye Sandy Redo: Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	Sand Grains. Ed Matrix (S4) x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rk Surface (F6)	² Location: Indicato Da Iron Ve Oth	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ter (Explain in Remarks)
De: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches): harks:	n, D=Depletion, RM ors: A2) (A4) A5) Dark Surface (A11) 2e (A12) 1eral (S1) or Peat (S3) Iserved):	=Reduced Matrix,	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	Eand Grains. Ead Matrix (S4) x (S5) trix (S6) xy Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rrk Surface (F6)	² Location: Indicato Da Iron Ve Oth	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ter (Explain in Remarks)
De: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea Strictive Layer (if of Type: Depth (inches): narks:	n, D=Depletion, RM brs: A2) (A4) (A4) (A5) Dark Surface (A11) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A13) (A13) (A14) (A14) (A15) (A14) (A15) (A15) (A15) (A17) (=Reduced Matrix,	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	Sand Grains. ed Matrix (S4) x (S5) trix (S6) xy Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) urk Surface (F6)	² Location: Indicato Co Da Iron Ve Oth	PL=Pore Lining, M=Matrix Prs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) 1er (Explain in Remarks)
be: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches): harks:	n, D=Depletion, RM prs: A2) (A4) (A4) (A5) Park Surface (A11) pre (A12) preat (S1) or Peat (S3) preved):	=Reduced Matrix,	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	Sand Grains. ed Matrix (S4) x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) urk Surface (F6)	² Location: Indicato Co Da Iron Ve Oth	PL=Pore Lining, M=Matrix Prs for Problematic Hydric Soils³: ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) 1er (Explain in Remarks)
be: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea Strictive Layer (if of Type: Depth (inches): narks:	n, D=Depletion, RM prs: A2) (A4) (A4) (A5) Park Surface (A11) xe (A12) leral (S1) or Peat (S3) pserved):	=Reduced Matrix,	MS=Masked S Sandy Gleye Sandy Redo: Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Redox Depre	Sand Grains. ed Matrix (S4) x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rrk Surface (F6)	² Location: Indicato Co Da Irou Ve Oth	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils³: ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) 1er (Explain in Remarks)
be: C=Concentratic Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches): marks:	n, D=Depletion, RM brs: A2) (A4) (A4) (A5) Dark Surface (A11) (A12) ieral (S1) or Peat (S3) bserved):	=Reduced Matrix, 	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dat Redox Depre	Sand Grains. ed Matrix (S4) x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rrk Surface (F6)	² Location: Indicato Co Da Iron Ve Oth	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils³: ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) 1er (Explain in Remarks)
be: C=Concentration Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea Strictive Layer (if of Type: Depth (inches): narks:	n, D=Depletion, RM prs: (A2) (A4) (A5) Dark Surface (A11) (A12) leral (S1) or Peat (S3) pserved):	=Reduced Matrix, 	MS=Masked S Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dar	ed Matrix (S4) x (S5) trix (S6) xy Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rk Surface (F6)	² Location: Indicato Da Iron Ve Oth	PL=Pore Lining, M=Matrix rs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
Hydric Soil Indicat Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if o Type: Depth (inches):	A2) (A4) (A5))ark Surface (A11) xe (A12) heral (S1) or Peat (S3) hserved):		Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Redox Depre	ed Matrix (S4) x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rk Surface (F6)	Indicato Co Da Iro Ve Oth	rs for Problematic Hydric Soils ³ : ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	A2) (A4) (A5) Dark Surface (A11) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A12) (A13) (A13) (A14) (A1		Sandy Gleye Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dar Redox Depre	ed Matrix (S4) x (S5) trix (S6) cy Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rrk Surface (F6)	Co Da Iroi Ve Oth	ast Prairie Redox (A16) rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	A2) (A4) (A5))ark Surface (A11) xe (A12) leral (S1) or Peat (S3) iserved):	-	Sandy Redox Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	x (S5) trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) urk Surface (F6)	Da Iroi Ve Oth	rk Surface (S7) n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
Black Histic (A3) Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	(A4) (A5) Dark Surface (A11) te (A12) teral (S1) or Peat (S3)	-	Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dal Redox Depre	trix (S6) ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) rk Surface (F6)	Iro. Ve Oth	n-Manganese Masses (F12) ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
Hydrogen Sulfide Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Mii 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	(A4) (A5) Dark Surface (A11) (ce (A12) (eral (S1) or Peat (S3) (served):	-	Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dar Redox Depre	ky Mineral (F1) ed Matrix (F2) atrix (F3) Surface (F6) irk Surface (F7))Ve Oth	ry Shallow Dark Surface (TF12) ter (Explain in Remarks)
Stratified Layers 2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches): harks:	(A5) Dark Surface (A11) ce (A12) leral (S1) or Peat (S3) Derved):	- - - - -	Loamy Midek Loamy Gleye Depleted Ma Redox Dark	ed Matrix (F2) atrix (F3) Surface (F6) rk Surface (F7)		ner (Explain in Remarks)
2 cm Muck (A10) Depleted Below I Thick Dark Surfa Sandy Mucky Mii 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	Dark Surface (A11) ce (A12) leral (S1) or Peat (S3) Jserved):	- - - -	Depleted Ma Redox Dark 3 Depleted Dar Redox Depre	atrix (F3) Surface (F6) Irk Surface (F7		
Depleted Below Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches): marks:	Dark Surface (A11) ce (A12) neral (S1) or Peat (S3) pserved):	- - -	Redox Dark	Surface (F6) rk Surface (F7	-	
Thick Dark Surfa Sandy Mucky Min 5 cm Mucky Pea trictive Layer (if of Type: Depth (inches):	ce (A12) leral (S1) or Peat (S3) Jserved):	-	Depleted Dar	rk Surface (F0)	-	
Sandy Mucky Mi 5 cm Mucky Pea trictive Layer (if o Type: Depth (inches):	or Peat (S3)	-	Redox Depre	IK Sunace (FI	7) ³ India	ators of hydrophytic vegetation and
5 cm Mucky Pea trictive Layer (if o Type: Depth (inches): harks:	or Peat (S3)	-	Redux Debre			vetland hydrology must be present.
5 cm Mucky Pea trictive Layer (if o Type: Depth (inches): narks:	or Peat (S3) served):			essions (Fo)	u	nless disturbed or problematic.
trictive Layer (if o Гуре: Depth (inches): narks:	served):					
DROLOGY						
land Hydrology In	licators:	a au dina dina bara bi a Ulu			Casaadu	n ladietar (nining a ftur nam
Primary Indicators (ninimum of one is re	equired; check all	that apply)	(D0)	Seconda	ary indicators (minimum or two requ
	1)			(D9)	Suna	
High Water Table	(A2)	Aquatic F	auna (B13)			age Patterns (B10)
_Saturation (A3)		I rue Aqu	atic Plants (B1	14)	Dry-S	eason Water Table (C2)
Water Marks (B1		Hydroger	Sulfide Odor	(C1)	Crayfi	sh Burrows (C8)
_Sediment Deposi	is (B2)		Rhizospheres	on Living Roc	ts (C3) Satura	ation Visible on Aerial Imagery (C9)
Drift Deposits (B	·)	Presence	e of Reduced Ir	ron (C4)	Stunte	ed or Stressed Plants (D1)
Algal Mat or Crus	t (B4)	Recent Ir	on Reduction i	in Tilled Soils	(C6) Geom	orphic Position (D2)
Iron Deposits (B)	Thin Muc	k Surface (C7))	FAC-I	Neutral Test (D5)
_ Inundation Visible	on Aerial Imagery ((B7) Gauge or	Well Data (D9	9)		
_ Sparsely Vegetal	ed Concave Surface	e (B8) Other (E>	plain in Remai	irks)		
d Observations:						
face Water Present	Yes	No <u>X</u> E	Depth (inches)			
ter Table Present?	Yes	<u>No X</u> E	Depth (inches)			
uration Present?	Yes	<u>No X</u> E	Depth (inches)	W	etland Hydrology F	resent? Yes <u>No</u>
ludes capillary fring	ジ	onitoring well, aeri	al photos, prev	vious inspectio	ins), if available:	
ludes capillary fring cribe Recorded Da	e) a (stream gauge, mo					

Project/Site: Lincoln	way Industri	al Rail		City/Co	unty: Clinto	on County		Sampling Date:	1	1/10/2015
Applicant/Owner:	Clinton Dev	elopment				State:	IA	Sampling Point:		7
Investigator(s): M.	Leonard, A.	Cherko				Se	ection,	Township, Range:	S24,	T81N, R5E
Landform (hillslope, te	errace, etc.):	Top of emba	nkment	Local rel	ief (concave	e, convex, no	ne): I	None		
Slope (%): 0-1	Lat:	41.80163		Long:	-9	0.325297	-	Datum:	UTM	83
Soil Map Unit Name:	351 - Atterb	erry silt loam, sa	ndy sustr	aum 0 to 2%	slopes		NW	I classification:		None
Are climatic / hydrolog	ic conditions	on the site typica	l for this tir	ne of year?	Yes X	No	(If ı	no, explain in Remarks	5)	
Are Vegetation	, Soil, c	or Hydrology	significa	ntly disturbed	d? Are	e "Normal Cir	cumsta	ances" present? Yes	Х	No
Are Vegetation	, Soil , c	or Hydrology	naturally	/ problematic	? (lf ı	needed, expla	ain any	answers in Remarks.)	
SUMMARY OF F	INDINGS -	Attach site n	nap shov	wing sam	pling poir	nt locatior	ns, tra	ansects, importa	nt fea	atures, etc.
Hydrophytic Vegetatio	n Present?	Yes	No	Х						
Hydric Soil Present?		Yes	No	X	Is the Sam	pled Area				
Wetland Hydrology Pr	esent?	Yes	No	X	within a W	etland?		Yes N	lo	X
Remarks:										
Outpoint for SP 8										
VEGETATION - U	Jse scienti	fic names of	plants.							

Trop Stratum (Plat aize: 20)	Absolute	Dominant	Indicator	Dominance Test works	heet:			
	% Cover		Status	Are OBL, FACW, or FAC	ecies i nat C:		1	(A)
2. 3. 4.				Total Number of Domina Species Across All Strat	ant a:	:	2	(B)
Sapling/Shrub Stratum Plot size: 15	')	= Total Cover		Percent of Dominant Sp That Are OBL, FACW, o	ecies r FAC:	50)%	(A/B)
2.				Prevalence Index work	sheet:			
3.				Total % Cover	r of:	Mult	iply by:	
4.				OBL species	0	x 1 =	0	-
5.				FACW species	0	x 2 =	0	-
		= Total Cover		FAC species	45	x 3 =	135	—
Herb Stratum (Plot size: 5')		-		FACU species	0	x 4 =	0	-
1. Setaria viridis	50	Х	UPL	UPL species	50	x 5 =	250	
2. Andropogon gerardii	35	Х	FAC	Column Totals:	95	(A)	385	(B)
3. Poa pratensis	10		FAC	Prevalence	Index = B/A	×=4	4.05	_
4				Hydrophytic Vegeta	tion Indica	tors:		
6				1 - Rapid Test fo	or Hydrophy	tic Vegetati	on	
7				2 - Dominance	Fest is >50%	6		
/				3 - Prevalence I	ndex is <u><</u> 3.0)1		
9		- <u> </u>		4 - Morphologica data in Remarks	al Adaptation or on a sep	ns ¹ (Provide parate shee	e support et)	ing
10				Problematic Hyd	drophytic Ve	getation ¹ (I	Explain)	
	95	= Total Cover						
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> 1.	_)			¹ Indicators of hydric s present, unless distur	oil and wetla	and hydrolo lematic.	ogy must	be
2		= Total Cove	r	Hydrophytic Vegetation Present?	Yes	No	X	
Remarks: (Include photo numbers here or on	a separate	sheet.)		Present?				

Depth									
inches)	Color (moist)	%	Color (n	noist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 3/2	65						Sandy Clay Loam	
	10 YR 4/1	35							
								_	
be: C=Cond	centration, D=Depl	etion, RM=	=Reduced M	atrix, MS	S=Masked	Sand Grai	ns.	² Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:							Indicators for	Problematic Hydric Soils ³ :
Histosol ((A1)			S	Sandy Gley	yed Matrix ((S4)	Coast Pr	airie Redox (A16)
Histic Epi	ipedon (A2)			S	Sandy Red	lox (S5)		Dark Sur	face (S7)
Black His	stic (A3)			ຣ	Stripped M	atrix (S6)		Iron-Man	ganese Masses (F12)
- Hydroger	n Sulfide (A4)				.oamy Muo	cky Mineral	(F1)	Very Sha	allow Dark Surface (TF12)
 Stratified	Lavers (A5)			— L	.oamv Gle	ved Matrix	(F2)	Other (E)	xplain in Remarks)
_ 2 cm Mu	ck (A10)			— _c	Depleted M	/ Atrix (F3)	()	_ `	, ,
 Depleted	Below Dark Surfa	ce (A11)		—	Redox Darl	k Surface (l	F6)		
- Thick Da	rk Surface (A12)	50 (7117)		—. 		ark Surface	o (F7)	³ Indicators	of hydrophytic vegetation and
- Sandy M	ucky Minoral (S1)			— ⁻	Podov Don		C (17)	wetland	d hydrology must be present.
					Vedox Dep		0)	unless	disturbed or problematic.
	sky Peat of Peat (a	s3)							
trictive Lay	yer (if observed):							Hydric Soil Presen	t? Yes <u>No X</u>
trictive Lay	yer (if observed):							Hydric Soil Presen	t? Yes <u>No X</u>
trictive Lay	yer (if observed): es): }Y			- 				Hydric Soil Presen	t? Yes <u>No X</u>
trictive Lay	yer (if observed): es): SY logy Indicators:			- 				Hydric Soil Presen	t? Yes <u>No</u>
Trictive Lay Type: Depth (inchor marks: DROLOC land Hydro Primary Indi	yer (if observed): es):	one is re	iquired; chec		it apply)			Hydric Soil Presen	t? Yes No _>
trictive Lay ype: Depth (incho narks: DROLOC Iand Hydro Primary Indi Surface V	yer (if observed): es):	of one is re		<u>k</u> all tha	it apply) ed Leaves	s (B9)		Hydric Soil Presen	t? Yes No _>
Type: Depth (inchor narks: DROLOC land Hydro Primary Indi Surface V High Wat	yer (if observed): es): SY blogy Indicators: cators (minimum of Vater (A1) er Table (A2)	of one is re	<u>iquired; cheo</u> Wat		it apply) ied Leaves ina (B13)	s (B9)		Hydric Soil Presen	t? Yes <u>No </u>
trictive Lay ype: Depth (incher harks: DROLOG land Hydro Primary Indi Surface V High Wat Saturatio	yer (if observed): es): SY Dogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3)	of one is re	;quired; chec Wat Aqu True	 	it apply) ied Leaves ina (B13) c Plants (E	s (B9) 314)		Hydric Soil Presen	t? Yes No licators (minimum of two requind l Cracks (B6) atterns (B10) i Water Table (C2)
trictive Lay ype: Depth (incho marks: DROLOC land Hydro Primary Indi Surface V High Wat Saturatio Water Ma	yer (if observed): es): SY Sology Indicators: cators (minimum of Vater (A1) rer Table (A2) n (A3) arks (B1)	of one is re	iquired; cheo Wat Aqu Hyd	k all tha ter-Stain atic Fau ∋ Aquatic rogen S	tt apply) red Leaves ina (B13) c Plants (E ulfide Odo	s (B9) 314) or (C1)		Hydric Soil Presen Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu	t? Yes No icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
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Project/Site: Lincoln	way Indust	rial Rail		City/Cc	ounty:	Clinton	County		Sampling Date:	11	/10/2015
Applicant/Owner:	Clinton Dev	velopment					State:	IA	Sampling Point:		8
Investigator(s): M.	Leonard, A	A. Cherko					S	ection	, Township, Range:	S24, T	81N, R5E
Landform (hillslope, te	rrace, etc.):	Trackside	ditch	Local re	lief (c	oncave, d	convex, no	ne):	Concave		
Slope (%): 2-3	Lat:	41.8016	ô29	Long:		-90.3	325405		Datum:	UTM8	3
Soil Map Unit Name:	351 - Atterk	perry silt loam	, sanc	dy sustraum 0 to 2%	5 slop	es		N\	NI classification:	١	lone
Are climatic / hydrolog	ic conditions	s on the site typ	pical fo	or this time of year?	Yes	Х	No	(If	no, explain in Remarks	;)	
Are Vegetation	, Soil,	or Hydrology		significantly disturbe	d?	Are "I	Normal Cir	cums	tances" present? Yes	Х	No
Are Vegetation	, Soil ,	or Hydrology		naturally problemation	;?	(If ne	eded, expl	ain an	y answers in Remarks.)	
SUMMARY OF FI	NDINGS	- Attach sit	e ma	ap showing sam	plinç	g point	locatio	ns, tr	ansects, importa	nt feat	tures, etc.
Hydrophytic Vegetation	n Present?	Yes	Х	No							
Hydric Soil Present?		Yes	Х	No	Is th	e Sampl	ed Area				
Wetland Hydrology Pro	esent?	Yes	Х	No	with	in a Wetl	land?		Yes <u>X</u> N	o	
Remarks:					<u>.</u>						

Wetland 6 is a PEMA/C wetland in trackside ditch - follows the length of the rail spur connected to opposite side via a culvert under the spur.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	2	(4)
1. 2. 3. 4.				Total Number of Dominant Species Across All Strata:	3	(A) (B)
5. <u>Sapling/Shrub Stratum</u> Plot size: <u>1</u> 1. <i>Salix interior</i> 2.	5') 15	= Total Cover	FACW	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet:	100%	(A/B)
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
	15	= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Typha angustifolia	80	<u> </u>	OBL	UPL species	x 5 =	
2. Phalaris arundinacea	20	X	FACW	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	\ =	_
4				Hydrophytic Vegetation Indica	tors:	
o				1 - Rapid Test for Hydrophy	tic Vegetation	
o				X 2 - Dominance Test is >50%	0	
7				3 - Prevalence Index is <3.0)1	
8 9.				4 - Morphological Adaptation data in Remarks or on a set	ns ¹ (Provide suppor parate sheet)	ting
10.				Problematic Hydrophytic Ve	getation ¹ (Explain)	
	100	= Total Cover				
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and weth present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	er	Hydrophytic Vegetation Yes Present?	Х No	
Remarks: (Include photo numbers here or or	n a separate	sheet.)				

PP - 7 North

SOIL

8

Depth	Matrix			Redox Fea	tures			,
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
			,					
pe: C=Conce	ntration, D=Deplet	ion, RM=	Reduced Matrix	, MS=Masked	I Sand Grai	ns.	² Location: PL=F	Pore Lining, M=Matrix
Hydric Soil In	dicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A	1)		_	Sandy Gle	yed Matrix	(S4)	Coast P	rairie Redox (A16)
Histic Epipe	edon (A2)			Sandy Rec	lox (S5)		Dark Su	rface (S7)
Black Histic	c (A3)			Stripped M	atrix (S6)		Iron-Ma	nganese Masses (F12)
Hydrogen S	Sulfide (A4)		_	Loamy Mu	cky Mineral	l (F1)	Very Sh	allow Dark Surface (TF12)
Stratified La	ayers (A5)		-	Loamy Gle	yed Matrix	(F2)	Other (E	Explain in Remarks)
2 cm Muck	(A10)			Depleted N	/latrix (F3)		—	
Depleted B	elow Dark Surface	(A11)		Redox Dar	k Surface (F6)		
Thick Dark	Surface (A12)			Depleted D	Oark Surface	e (F7)	³ Indicators	of hydrophytic vegetation and
Sandy Muc	ky Mineral (S1)			Redox Dep	oressions (F	-8)	wetlan	d hydrology must be present,
5 cm Mucky	y Peat or Peat (S3)					uniess	disturbed of problematic.
strictive Layer Type: Depth (inches narks: No	r (if observed):): pit dug due to inu	ndation. S	Soils assumed h	ydric due to a	presence o	of hydrophyt	lydric Soil Presentic vegetation and	nt? Yes X No hydrology indicators.
strictive Layer Type: Depth (inches narks: No	r (if observed):): pit dug due to inu	ndation. S	Soils assumed h	ydric due to a	i presence o	of hydrophyt	lydric Soil Presentic vegetation and	nt? Yes X No
strictive Layer Type: Depth (inches narks: No DROLOGY	r (if observed):	ndation. S	Soils assumed h	ydric due to a	presence of	of hydrophyt	lydric Soil Presentic vegetation and	nt? Yes X No
strictive Layer Type: Depth (inches marks: No <u>'DROLOGY</u> tland Hydrolo Primary Indice	r (if observed):): pit dug due to inun f pgy Indicators: pators (minimum of	ndation. S	Soils assumed h	ydric due to a	presence (of hydrophyt	lydric Soil Preser	hydrology indicators.
strictive Layer Type: Depth (inches marks: No /DROLOGY tland Hydrolo Primary Indica X Surface Wa	r (if observed):	ndation. S one is rec	Soils assumed h quired; check all Water-S	ydric due to a	presence (of hydrophyt	Iydric Soil Presentic vegetation and	hydrology indicators.
trictive Layer Type: Depth (inches marks: No DROLOGY tland Hydrolc Primary Indica X Surface Wa High Water	r (if observed):	ndation. S	Soils assumed h quired; check all Water-S	ydric due to a that apply) tained Leaves	s (B9)	of hydrophyt	Iydric Soil Presentic vegetation and	ht? Yes X No hydrology indicators. dicators (minimum of two requ bil Cracks (B6)
	r (if observed):): pit dug due to inum f ogy Indicators: ators (minimum of ater (A1) r Table (A2) (A3)	ndation. S	Soils assumed h quired; check all Water-S Aquatic True Ag	ydric due to a that apply) tained Leaves Fauna (B13)	s (B9)	of hydrophyt	Iydric Soil Presentic vegetation and tic vegetation and Secondary In Surface Sc Drainage F	ht? Yes X No hydrology indicators. dicators (minimum of two requ bil Cracks (B6) Patterns (B10) p. Water Table (C2)
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strictive Layer Type: Depth (inches marks: No (DROLOGY etland Hydroloc Primary Indica X Surface Wa High Water X Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Sparsely Vo to Observation fface Water Present turation Present	r (if observed): pit dug due to inum pit dug due to inum f ogy Indicators: ators (minimum of ater (A1) r Table (A2) (A3) (A	ndation. S one is red nagery (E Surface X X	Soils assumed h	that apply) tained Leaves Fauna (B13) uatic Plants (B n Sulfide Odo Reduced ron Reduced ron Reductor ck Surface (C or Well Data (I xplain in Rem Depth (inches Depth (inches	s (B9) B14) or (C1) es on Living Iron (C4) n in Tilled S 7) D9) harks) 3) 7" 3) 0"	Roots (C3) Soils (C6)	Iydric Soil Presentic vegetation and tic vegetation and Secondary In Surface So Drainage F Dry-Seaso Crayfish Bit Saturation Stunted or X Geomorph X FAC-Neutr	nt? Yes X No hydrology indicators. dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes X No
strictive Layer Type: Depth (inches marks: No (DROLOGY etland Hydrold Primary Indica X Surface Wa High Water X Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Sparsely Ve etld Observatio rface Water Presenturation Presenturatio	r (if observed):): pit dug due to inum pit dug due to inum f ogy Indicators: ators (minimum of ater (A1) r Table (A2) (A3)	ndation. S one is red nagery (E Surface X X auge, mo	Soils assumed h	that apply) tained Leaves Fauna (B13) uatic Plants (I n Sulfide Odo I Rhizosphere e of Reduced ron Reduction ck Surface (C or Well Data (I xplain in Rem Depth (inches Depth (inches Depth (inches	s (B9) 314) or (C1) s on Living Iron (C4) n in Tilled S 77 D9) narks) 5) 7" s) 0" evious insp	Roots (C3) Goils (C6)	Iydric Soil Presentic vegetation and Secondary Ind Surface Sc Drainage F Dry-Seaso Crayfish Bu Saturation Stunted or X Geomorph X FAC-Neutr Hydrology Presentic available:	nt? Yes X No hydrology indicators. dicators (minimum of two requ bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes X No

Project/Site: Lincolnway Industr	al Rail	City/Co	ounty:	Clinto	n County		Sampling Date	e: <u>11</u>	/10/2015
Applicant/Owner: Clinton Dev	elopment				State:	IA	Sampling Point	t:	9
Investigator(s): M. Leonard, A.	Cherko				S	ection,	Township, Range:	S24, T	81N, R5E
Landform (hillslope, terrace, etc.):	Pasture	Local re	elief (c	oncave,	convex, no	ne): N	lone		
Slope (%): 3-4 Lat:	41.804193	Long:		-90	.325029		Datum:	UTM8	3
Soil Map Unit Name: 351 - Atterbe	erry silt loam, sandy s	ustraum 0 to 29	% slop	es		NW	I classification:	Ν	lone
Are climatic / hydrologic conditions	on the site typical for th	is time of year?	Yes	Х	No	(lf n	o, explain in Remarl	<s)< td=""><td></td></s)<>	
Are Vegetation, Soil, o	or Hydrologysigi	nificantly disturbe	ed?	Are	"Normal Cir	cumsta	ances" present? Yes	Х	No
Are Vegetation , Soil , o	or Hydrology nat	urally problemati	c?	(If n	eeded, expl	ain any	answers in Remark	s.)	
SUMMARY OF FINDINGS -	Attach site map s	showing sam	npling	g poin	t location	ns, tra	ansects, import	ant feat	ures, etc.
Hydrophytic Vegetation Present?	Yes N	o X							
Hydric Soil Present?	Yes N	o X	Is th	e Samn	oled Area				
Wetland Hydrology Present?	Yes N	0 X	with	in a We	etland?		Yes	No X	
Remarks: Outpoint for SP 8 and	d Wetland 6.								

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	4	
1. 2. 3. 4				Total Number of Dominant		(A) (B)
5 Sapling/Shrub Stratum Plot size: 1. Populus deltoides	5') 25	= Total Cover	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:	33%	(A/B)
2.	1			Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
	25	= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Solidago altissima	80	<u> </u>	FACU	UPL species	x 5 =	
2. Elymus canadensis	20	Х	FACU	Column Totals:	(A)	(B)
3. Festuca arundinacea	5		UPL	Prevalence Index = B/A	=	_
4		· ·		Hydrophytic Vegetation Indicat	ors:	
5		· ·		1 - Rapid Test for Hydrophyt	tic Vegetation	
6				2 - Dominance Test is >50%	D	
7		·		3 - Prevalence Index is <3.0	1	
8 9.				4 - Morphological Adaptation data in Remarks or on a sep	ns ¹ (Provide support parate sheet)	ting
10.				Problematic Hydrophytic Ve	getation ¹ (Explain)	
	105	= Total Cover			o (1)	
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and wetla present, unless disturbed or probl	and hydrology must ematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes Present?	No_X	
Remarks: (Include photo numbers here or or	a separate	sheet.)		1		

PP 8 - North

Depth	IVIC								
(inches)	Color (moist) %	Color (n	noist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 3/2	60						Sandy Clay Loam	
	10 YR 4/2	40							
pe: C=Con	centration, D=D	epletion, RI	M=Reduced M	atrix, MS	S=Masked	I Sand Grai	ns.	² Location: PL=P	ore Lining, M=Matrix
Hydric Soil	Indicators:	<u> </u>						Indicators for	Problematic Hydric Soils ³ :
Histosol	(A1)			S	andy Glev	ved Matrix ((S4)	Coast Pr	airie Redox (A16)
Histic Ep	vipedon (A2)			—	andv Red	lox(S5)	(-)	Dark Sur	face (S7)
Black His	stic (A3)				stripped M	latrix (S6)		Iron-Man	ganese Masses (F12)
	n Sulfido (A4)			`			(E1)		allow Dark Surface (TE12)
Stratified				— [¹		wod Motrix	(F1) (F2)	Other (E)	anow Dark Surface (TFTZ)
- 2 om Mu	Layers (A3)			—		Actrix (E2)	(12)		
	CK (ATU)					/ialiix (FS)			
				— ^ĸ			FO)	31	
	Irk Surface (A12)			Pepieted D		e (F7)	wetland	or nydropnytic vegetation and hydrology must be present
Sandy M	lucky Mineral (S	1)		R	ledox Dep	pressions (F	-8)	unless	disturbed or problematic.
5 cm Mu	cky Peat or Pea	t (S3)							·
Type: Depth (inch narks:	les):			- 				Hydric Soil Presen	t?Yes <u>No X</u>
Type: Depth (inch narks:	ies):							Hydric Soil Presen	t?Yes <u>No X</u>
Type: Depth (inch narks: DROLOC	ies): 3Y							Hydric Soil Presen	t? Yes <u>No X</u>
Type: Depth (inch narks: DROLO(tland Hydro	BES): GY plogy Indicator	 S:		_ 				Hydric Soil Presen	t? Yes <u>No</u>
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind	BES): GY ology Indicator licators (minimu	s: n of one is	required; chec	 	t apply)			Hydric Soil Presen	t? Yes <u>No</u>
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V	BY BY Bicators (minimu Water (A1)	s: m of one is	required; chea		t apply) ed Leaves	s (B9)		Hydric Soil Presen	t? Yes No _>
Fype: Depth (inch narks: DROLOC land Hydro Primary Ind Surface V High Wa	aes): GY ology Indicator licators (minimu Water (A1) ter Table (A2)	s: m of one is	required; cheo Wa Aqu	k all tha	t apply) ed Leaves na (B13)	s (B9)		Hydric Soil Presen	t? Yes No licators (minimum of two requ l Cracks (B6) atterns (B10)
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio	BY ology Indicator licators (minimu Water (A1) ter Table (A2) m (A3)	s: m of one is	required; cheo Wa Aqu True	k all that ter-Staind atic Fau	t apply) ed Leaves na (B13) c Plants (E	s (B9) B14)		Hydric Soil Presen	t? Yes No licators (minimum of two requ il Cracks (B6) atterns (B10) o Water Table (C2)
Type: Depth (inch narks: DROLOC Eland Hydro Primary Ind Surface V High Wa Saturatio Water Ma	GY ology Indicator licators (minimu Water (A1) ter Table (A2) m (A3) arks (B1)	s: m of one is	required; cheo Wa Aqu True Hyd	k all that ter-Staind atic Faul ∋ Aquatic rogen St	t apply) ed Leaves na (B13) c Plants (E ulfide Odo	s (B9) B14) or (C1)		Hydric Soil Presen	t? Yes No /
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio Water Ma Sedimen	GY ology Indicator licators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2)	s: m of one is	required; chea Wa Aqu Tru Hyc Oxia	k all that ter-Stain atic Fau ⇒ Aquatic rogen St Jized Rh	t apply) ed Leaves na (B13) c Plants (E ulfide Odo izosphere	s (B9) B14) pr (C1) es on Living	Roots (C3	Hydric Soil Presen	t? Yes No licators (minimum of two requind l Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9)
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio Water Ma Sedimen Drift Dep	GY ology Indicator licators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) iosits (B3)	s: m of one is	required; cheo Wa Aqu Truc Oxio Pre	k all that ter-Staind atic Faul ⇒ Aquatic 'rogen St dized Rh sence of	t apply) ed Leaves na (B13) c Plants (E ulfide Odo izosphere Reduced	s (B9) B14) or (C1) es on Living I Iron (C4)	Roots (C3	Hydric Soil Presen	t? Yes No _> licators (minimum of two requ l Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1)
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio Water M: Sedimen Drift Dep Algal Ma	GY ology Indicator licators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) iosits (B3) t or Crust (B4)	s: m of one is	required; chea Wai Aqu Trua Oxia Pre Rec	k all that ter-Staind atic Faul atic Faul a Aquatic lrogen St Jized Rh sence of ent Iron	t apply) ed Leaves na (B13) c Plants (E ulfide Odo izosphere Reduced Reductior	s (B9) B14) pr (C1) es on Living I Iron (C4) n in Tilled S	Roots (C3	Hydric Soil Presen	t? Yes No licators (minimum of two requined l Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Type: Depth (inch narks: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep	GY ology Indicator licators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) iosits (B3) t or Crust (B4) osits (B5)	s: m of one is	required; chee Wai Aqu True Hyc Pre Rec Thir	k all that ter-Staind atic Fault rogen St dized Rh sence of ent Iron ∩ Muck S	t apply) ed Leaves na (B13) c Plants (E ulfide Odo izosphere Reduced Reductior Surface (C	s (B9) B14) or (C1) es on Living I Iron (C4) n in Tilled S :7)	Roots (C3	Hydric Soil Presen Secondary Inc. Surface Soil Drainage Program Dry-Seasor Crayfish But Saturation N Stunted or S Geomorphic FAC-Neutral	t? Yes No licators (minimum of two requined li Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wa Saturatio Water Ma Saturatio Drift Dep Algal Ma Iron Dep Inundatio	GY ology Indicator licators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2) posits (B3) t or Crust (B4) osits (B5) on Visible on Ae	s: m of one is rial Imagery	required; chea War Aqu Truu Hyd Hyd Nar Rec Rec Thir Thir Rec	ck all that ter-Stain atic Faul ⇒ Aquatic lrogen Si dized Rh sence of ent Iron) Muck S ige or W	t apply) ed Leaves na (B13) c Plants (E ulfide Odo izosphere Reduced Reductior Surface (C ell Data (I	s (B9) B14) or (C1) so on Living I Iron (C4) n in Tilled S 77) D9)	Roots (C3	Hydric Soil Presen Secondary Inco Surface Soil Drainage Pa Dry-Season Crayfish Bu Saturation N Stunted or S Geomorphic FAC-Neutral	t? Yes No licators (minimum of two requined li Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Project/Site: Lincol	nway Industr	ial Rail		City/Co	unty: C	linto	n County		Sampling Date:		11/10/2015
Applicant/Owner:	Clinton Dev	elopment					State:	IA	Sampling Point:		10
Investigator(s):	I. Leonard, A	Cherko					Se	ection	, Township, Range:	S24,	, T81N, R5E
Landform (hillslope, t	errace, etc.):	Pasture		Local re	lief (cor	icave,	convex, nor	ne):	None		
Slope (%): 3-4	Lat:	41.803802		Long:		-90	.325192	-	Datum:	UTM	183
Soil Map Unit Name:	351 - Atterb	erry silt loam, sar	ndy sus	traum 0 to 2%	slope	5		NV	VI classification:		None
Are climatic / hydrolo	gic conditions	on the site typical	for this	time of year?	Yes	Х	No	(If	no, explain in Remarks	;)	
Are Vegetation	, Soil , o	or Hydrology	signifi	cantly disturbe	d?	Are	"Normal Circ	cumst	ances" present? Yes	Х	No
Are Vegetation	, Soil , o	or Hydrology	natura	ally problemation	?	(If n	eeded, expla	ain an	y answers in Remarks.)	
SUMMARY OF F	INDINGS -	Attach site m	_ ap sh	owing sam	pling	poin	t location	s, tr	ansects, importa	nt fe	atures, etc.
Hydrophytic Vegetation	on Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	Is the	Samp	led Area				
Wetland Hydrology P	resent?	Yes	No	Х	within	a We	tland?		Yes N	o	X
Remarks: Outpoi	nt for SP 11.				I						
VEGETATION -	Use scient	ific names of p	olants								

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species That		
1				Are OBL, FACW, or FAC:	0	(A)
2						
3				Total Number of Dominant		
4				Species Across All Strata:	2	(B)
5						
		= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size: 15	;)			That Are OBL, FACW, or FAC:	0%	(A/B)
1						
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')		•		FACU species	x 4 =	
1. Elymus canadensis	45	Х	FACU	UPL species	x 5 =	
2. Verbena stricta	20	X	UPL	Column Totals:	(A)	(B)
3. Setaria viridis	10		UPL	Prevalence Index = B/A	=	
4. Helianthus annuus	10		FACU	Ludrankutia Vagatatian Indiaat		
5. Solidago altissima	10		FACU	Hydrophytic Vegetation Indicate	ors:	
6.				- Apid Test for Hydrophyti	ic vegetation	
7.				2 - Dominance Test is >50%		
8.	-	·		3 - Prevalence Index is $\leq 3.0^{\circ}$		
9		·		4 - Morphological Adaptation	(Provide suppor arate sheet)	ting
0				Broblomatic Hydrophytic Voc	arate sileet)	
10	05					
Woody Vine Stratum (Plot size: 30)	95					
1)			present, unless disturbed or proble	and hydrology must ematic.	De
2.				Hydrophytic		
		= Total Cove	er	Vegetation Yes Present?	<u>No X</u>	-
Remarks: (Include photo numbers here or on	a separate	sheet.)				

Depth	Matrix			1100001100				
inches)	Color (moist)	%	Color (moi	st) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 3/2	50					Sandy Clay Loam	
	10 YR 4/2	50						
			P					
be: C=Cono	centration, D=Deple	tion, RM=R	educed Mati	ix, MS=Maskeo	d Sand Grai	ns.	² Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:						Indicators for	r Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy Gle	yed Matrix	(S4)	Coast P	rairie Redox (A16)
Histic Ep	ipedon (A2)			Sandy Red	dox (S5)		Dark Su	rface (S7)
Black His	tic (A3)			Stripped N	latrix (S6)		Iron-Mar	nganese Masses (F12)
Hydroger	n Sulfide (A4)			Loamy Mu	icky Mineral	l (F1)	Very Sha	allow Dark Surface (TF12)
 Stratified	Layers (A5)			Loamy Gle	eyed Matrix	(F2)	Other (E	xplain in Remarks)
 2 cm Muo	ck (A10)			Depleted N	Matrix (F3)		_ `	
Depleted	Below Dark Surface	e (A11)		Redox Da	rk Surface (F6)		
Thick Da	rk Surface (A12)	- ()		Depleted [Dark Surface	e (F7)	³ Indicators	of hydrophytic vegetation and
- Sandy M	ucky Mineral (S1)				oressions (F	=8)	wetlan	d hydrology must be present,
		2)				0)	unless	disturbed or problematic.
)						
trictive Lay	yer (if observed): es):						Hydric Soil Preser	nt? Yes <u>No X</u>
trictive Lay	yer (if observed): es):						Hydric Soil Preser	nt? Yes NoX
trictive Lay Type: Depth (inche narks: DROLOC	yer (if observed): es):						Hydric Soil Preser	nt? Yes <u>No X</u>
trictive Lay Type: Depth (inchon marks: DROLOC	yer (if observed): es): SY blogy Indicators:						Hydric Soil Preser	nt? Yes No _>
Trictive Lay Type: Depth (inchon narks: DROLOC Iand Hydro Primary Indi	yer (if observed): es): SY blogy Indicators: icators (minimum of	one is requ	uired; check	all that apply)			Hydric Soil Preser	nt? Yes <u>No</u>
trictive Lay Type: Depth (incher narks: DROLOC Eland Hydro Primary Indi Surface \	yer (if observed): es): SY blogy Indicators: icators (minimum of Water (A1)	one is requ	uired; check	all that apply) -Stained Leave	s (B9)		Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ il Cracks (B6)
trictive Lay Type: Depth (inchon narks: DROLOC Land Hydro Primary Indi Surface V High Wat	es): blogy Indicators: icators (minimum of Nater (A1) er Table (A2)	one is requ	uired; check Water Aquati	all that apply) -Stained Leave ic Fauna (B13)	s (B9)		Hydric Soil Preser	t? Yes No _>
trictive Lay Type: Depth (inchon marks: DROLOC Cland Hydro Primary Indi Surface V High Wat Saturatio	es): CY Cology Indicators: icators (minimum of Water (A1) icer Table (A2) n (A3)	one is requ	iired; check Water Aquati True <i>F</i>	all that apply) -Stained Leave c Fauna (B13)	s (B9) B14)		Hydric Soil Preser	dicators (minimum of two required il Cracks (B6) ratterns (B10) n Water Table (C2)
trictive Lay Type: Depth (inchon narks: DROLOC cland Hydro Primary Indi Surface V High Wat Saturatio Water Ma	yer (if observed): es): Dogy Indicators: icators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1)	one is requ	lired; check Water Aquati True <i>A</i> Hydro	all that apply) -Stained Leave ic Fauna (B13) Aquatic Plants (gen Sulfide Ode	s (B9) B14) or (C1)		Hydric Soil Preser	dicators (minimum of two required il Cracks (B6) h Water Table (C2) urrows (C8)
trictive Lay Type: Depth (inchomenand narks: DROLOC cland Hydroc Primary Indi Surface V High Wat Saturatio Water Ma Sedimen	yer (if observed): es): blogy Indicators: icators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	one is requ	uired; check Water Aquati True <i>A</i> Hydro Oxidiz	all that apply) -Stained Leave Ic Fauna (B13) Aquatic Plants (gen Sulfide Ode ed Rhizosphere	s (B9) B14) or (C1) es on Living	Roots (C3	Hydric Soil Preser	dicators (minimum of two requ il Cracks (B6) atterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
trictive Lay Type: Depth (inchone narks: DROLOC cland Hydro Primary Indi Surface N High Wate Saturatio Water Ma Sedimen Drift Depo	yer (if observed): es): blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3)	one is requ	uired; check Water Aquati True A Hydro Oxidiz Presei	all that apply) -Stained Leave ic Fauna (B13) Aquatic Plants (gen Sulfide Ode ed Rhizosphere nce of Reduced	s (B9) B14) or (C1) es on Living d Iron (C4)	Roots (C3	Hydric Soil Preser	dicators (minimum of two requ il Cracks (B6) ratterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
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trictive Lay Type: Depth (incho- harks: DROLOC Primary Indi Surface V High Wate Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo	es): Comparison of the served	one is requ	iired; check Water Aquati True A Hydro Oxidiz Prese Recer Thin M	all that apply) -Stained Leave ic Fauna (B13) Aquatic Plants (gen Sulfide Ode ed Rhizosphere nce of Reduced it Iron Reductio Juck Surface (0	s (B9) B14) or (C1) es on Living I Iron (C4) n in Tilled S	Roots (C3 Soils (C6)	Hydric Soil Preser	dicators (minimum of two required dicators (minimum of two required il Cracks (B6) ratterns (B10) in Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Project/Site: Lincolnway Industr	ial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clinton Dev	/elopment	-	State: I	A Sampling Point:	11
Investigator(s): M. Leonard, A	. Cherko		Secti	on, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, etc.):	Roadside ditch	Local relief (co	oncave, convex, none)	: Concave	
Slope (%): 3-4 Lat:	41.803566	Long:	-90.325197	Datum:	UTM83
Soil Map Unit Name: 351 - Atterb	erry silt loam, sandy sustraur	m 0 to 2% slope	es	NWI classification:	None
Are climatic / hydrologic conditions	on the site typical for this time	of year? Yes	X No	(If no, explain in Remarks))
Are Vegetation, Soil,	or Hydrologysignificantly	y disturbed?	Are "Normal Circur	nstances" present? Yes	X No
Are Vegetation, Soil,	or Hydrologynaturally pr	roblematic?	(If needed, explain	any answers in Remarks.)	1
SUMMARY OF FINDINGS	 Attach site map showing 	ng sampling	point locations,	transects, importar	nt features, etc.
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes X No	Is the	e Sampled Area		
Wetland Hydrology Present?	Yes X No	within	n a Wetland?	Yes <u>X</u> No	»
Remarks:					
Wetland 7 is a PEMC wetland in a	access road ditch.				

VEGETATION - Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>1.</u>	% Cover	Species?	Status	Are OBL, FACW, or FAC:	3	(A)
2 3 4		·		Total Number of Dominant Species Across All Strata:	3	(B)
5 Sapling/Shrub Stratum Plot size:1 1. Salix interior	<u>5')</u> 20	= Total Cover	FACW	Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.		· ·		Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.		· ·		OBL species	x 1 =	_
5.				FACW species	x 2 =	
	20	= Total Cover		FAC species	x 3 =	—
Herb Stratum (Plot size: 5')				FACU species	x 4 =	—
1. Typha angustifolia	80	Х	OBL	UPL species	x 5 =	_
2. Scirpus atrovirens	20	X	OBL	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	\ =	_
4				Hydrophytic Vegetation Indica	tors:	
5		·		1 - Rapid Test for Hydrophy	tic Vegetation	
6		· ·		X 2 - Dominance Test is >50%	/ 0	
7		· ·		3 - Prevalence Index is <3.0)1	
8 9.				4 - Morphological Adaptatio	ns ¹ (Provide support	ting
10		· ·		Problematic Hydrophytic Ve	actation ¹ (Explain)	
·····	100	- Total Cover				
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and weth present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes Present?	Х №	
Remarks: (Include photo numbers here or o	n a separate	sheet.)				

PP - 9 South

Г

Depth	IVIALITA			Iteuox I eau	- 1	. 2	_	
(inches)	Color (moist)	%	Color (moist)	%	Туре	Loc∠	Texture	Remarks
vpe: C=Conc	entration, D=Deple	etion, RM=	Reduced Matrix,	MS=Masked	Sand Grain	ns.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil I	Indicators:						Indicators for	or Problematic Hydric Soils ³ :
Histosol (A	A1)			Sandy Gley	/ed Matrix ((S4)	Coast F	Prairie Redox (A16)
Histic Epi	pedon (A2)		_	Sandy Red	ox (S5)		Dark S	urface (S7)
Black Hist	tic (A3)		_	Stripped Ma	atrix (S6)		Iron-Ma	inganese Masses (F12)
Hvdrogen	Sulfide (A4)		-	Loamy Muc	cky Mineral	(F1)	Verv St	allow Dark Surface (TF12)
Stratified	Layers (A5)		-	Loamv Glev	yed Matrix	(F2)	Other (Explain in Remarks)
2 cm Muc	k (A10)		-	Depleted M	latrix (F3)	. /		,
Depleted	Below Dark Surfac	e (A11)	-	Redox Darl	k Surface (I	F6)		
Thick Dar	k Surface (A12)	、···/	-	Depleted D	ark Surface	e (F7)	³ Indicators	s of hydrophytic vegetation and
Sandy Mu	icky Mineral (S1)		-	Redox Den	ressions (F	- (/	wetla	nd hydrology must be present,
5 cm Muc	ky Peat or Peat (S	3)	-			-1	unles	s disturbed or problematic.
		~)						
strictive Lay	er (if observed):							
Туре:	Wa	iter						
Depth (inche	es):	Surface				!	Hydric Soil Prese	nt? Yes <u>X</u> No
				ea nyaric aue '	to a presen	nce of hydro	ophytic vegetation	and hydrology indicators.
				a nyaric aue	to a presen	nce of hydro	ophytic vegetation	and hydrology indicators.
	Y			a nyaric aue	to a presen	nce of hydro	ophytic vegetation	and hydrology indicators.
(DROLOG etland Hydro	iY logy Indicators:	f one is rec	quired: check all	that apply)	to a presen	nce of hydro	Secondary Ir	and hydrology indicators.
(DROLOG etland Hydro Primary Indio X Surface W	i Y logy Indicators: cators (minimum of vater (A1)	f one is rec	quired; check all Water-St	that apply)	(B9)	ice of hydro	Secondary Ir	and hydrology indicators.
Primary India X Surface W	iY logy Indicators: cators (minimum of Vater (A1)	f one is rec	quired; check all Water-St	that apply)	s (B9)	ice of hydro	<u>Secondary Ir</u> Surface S	and hydrology indicators. Idicators (minimum of two requir oil Cracks (B6)
(DROLOG etland Hydro Primary India X Surface W High Wate Soturation	Iogy Indicators: cators (minimum of vater (A1) er Table (A2)	f one is rec	quired; check all Water-St Aquatic F	that apply) alined Leaves auna (B13)	s (B9)	ice of hydro	Secondary Ir Surface S Drainage	and hydrology indicators. Indicators (minimum of two requir poil Cracks (B6) Patterns (B10) poil Water Table (C2)
(DROLOG etland Hydro Primary India X Surface W High Wate Saturation Water Ma	iy logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rkc (B1)	f one is rec	quired; check all Water-St Aquatic F True Aqu	that apply) tained Leaves Fauna (B13) uatic Plants (E	(B9)	ice of hydro	Secondary Ir Surface S Drainage Dry-Seaso	and hydrology indicators. adicators (minimum of two require oil Cracks (B6) Patterns (B10) on Water Table (C2)
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(DROLOG etland Hydro Primary India X Surface W High Wate Saturation Water Ma Sediment Drift Depoc	iy logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3)	f one is rec	quired; check all Water-St Aquatic F True Aqu Hydroger Oxidized Presence	that apply) tained Leaves Fauna (B13) Jatic Plants (E n Sulfide Odo Rhizosphere e of Reduced	s (B9) 314) rr (C1) s on Living Iron (C4)	Roots (C3	Secondary Ir Surface S Drainage I Dry-Seaso Crayfish E)Saturation Stunted ou	and hydrology indicators. Indicators (minimum of two required oil Cracks (B6) Patterns (B10) on Water Table (C2) Surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
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Project/Site: Lincolnw	ay Industri	al Rail			City/Co	unty:	Clintor	n County	,		Samp	oling Da	ate:	11/	10/201	5
Applicant/Owner: C	linton Deve	elopment				-		Sta	te:	IA	Samp	ling Po	oint:		3	
Investigator(s): M. L	eonard, A.	Cherko							Sec	tion,	Township,	Range	: 5	624, T8	31N, R	5E
Landform (hillslope, terra	ace, etc.):	Adjacent	pond		Local re	lief (co	oncave,	convex,	none	e):	Concave					
Slope (%): 1-2 L	_at:	41.804	704		Long:		-90.	.316798			Datum:		ι	JTM83		
Soil Map Unit Name: 1	33 - Colo si	Ity clay loan	n, 0 to	2% slopes	;					N۷	VI classifica	tion:		N	one	
Are climatic / hydrologic	conditions	on the site ty	pical f	or this time	of year?	Yes	Х	No		(If i	no, explain i	n Rem	arks)			
Are Vegetation,	Soil, o	r Hydrology		significantly	y disturbe	d?	Are '	"Normal	Circu	umst	ances" pres	ent? Y	es	Х	No	
Are Vegetation ,	Soil , o	r Hydrology		naturally pr	oblematic	?	(lf ne	eeded, ex	xplai	n any	y answers ir	n Rema	arks.)			
SUMMARY OF FIN	IDI <mark>NGS</mark> -	Attach sit	e ma	ip showir	ng sam	pling	poin	t locati	ions	s, tra	ansects,	impo	rtant	feat	ures,	etc.
Hydrophytic Vegetation	Present?	Yes	Х	No												
Hydric Soil Present?		Yes	Х	No		Is the	e Samp	led Area	1							
Wetland Hydrology Pres	sent?	Yes	Х	No	_	withi	n a We	tland?	-		Yes	Х	_ No			
Remarks:																
Wetland 8 is a PEMA W	etland that	abuts Chann	el 3 ar	nd drains so	outh to Ro	ck Cre	ek.									

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30') 1.	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
2 3 4				Total Number of Dominant Species Across All Strata:	1	(B)
^{5.} <u>Sapling/Shrub Stratum</u> Plot size: <u>1</u> 1	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	_
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Phalaris arundinacea	95	X	FACW	UPL species	x 5 =	
2. Asclepias syriaca	5		FACU	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	\ =	
4				Hydrophytic Vegetation Indica	tors:	
5				1 - Rapid Test for Hydrophy	rtic Vegetation	
6				X 2 - Dominance Test is >509	6	
7				3 - Prevalence Index is <3.0) ¹	
8				4 - Morphological Adaptatio	ns ¹ (Provide suppor	ting
9				data in Remarks or on a se	parate sheet)	0
10.				Problematic Hydrophytic Ve	egetation ¹ (Explain)	
	100	= Total Cover		-		
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and wetl present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	er	Hydrophytic Vegetation Yes Present?	X No	-
Remarks: (Include photo numbers here or or	n a separate	sheet.)				

PP 10 - North

3

Dopui							~		
(inches)	Color (moist)	%	Color (mo	ist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10 YR 2/1	100						Clay Loam	
	antration D Danla	tion DM I	Deduced Met			and Crain		² Leastion: DI	Dere Lining M. Matrix
			Reduced Mai	11X, 1VIS=IVI	askeu Sa	anu Gran	15.		
Hydric Soil	Indicators:							Indicators	for Problematic Hydric Soils':
Histosol (A1)			Sanc	y Gleyeo	d Matrix (S4)	Coast	Prairie Redox (A16)
Histic Epi	pedon (A2)			Sanc	y Redox	: (S5)		Dark S	Surface (S7)
Black His	tic (A3)			Strip	oed Matri	rix (S6)		Iron-M	langanese Masses (F12)
	Sulfide (A4)			Loan	v Muckv	Mineral	(F1)	 Verv S	Shallow Dark Surface (TF12)
Stratified	Lavers (A5)			loan	iv Gleve	d Matrix ((F2)	X Other	(Explain in Remarks)
2 cm Muc	:k (A10)			 Depl	eted Mat	rix (F3)	、 <i>—</i> /		(1 .
	Below Dark Surface	o (A11)			v Dark 9	Surface (F	=6)		
	LOUW Dain Juliau	- (ATT)			atod Devi		0) (E7)	31	ro of hydrophytic vocatation and
	K Surface (A12)			Depi	eted Dari	k Sunace	e (F7)	Indicato	and hydrology must be present
Sandy Mu	ucky Mineral (S1)			Redo	x Depres	ssions (F	8)	unle	ss disturbed or problematic.
5 cm Muc	ky Peat or Peat (S	3)							
Depth (inche narks: procedure d a was a wet	es): described in the Mid and. The soils at th	dwest Reg is site mee	ion USACE [et the criteria	Delineation for problem	Manual, natic hyc	, Chapter dric soils,	5, page 1	Hydric Soil Pres 13-117, was used tors of hydrophyti	to evaluate soils to determine the cvegetation and hydrology are
Depth (inche narks: e procedure d a was a wetl sent. The are blematic soil	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4	dwest Reg is site mee ndscape p b4-Seasor	ion USACE I et the criteria osition that is nally Ponded	Delineation for proble is likely to c Soils), the	Manual, natic hyc ollect or refore the	, Chapter dric soils, concentr e soils in	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was user tors of hydrophyti (Part 3a - concav should be consid	to evaluate soils to determine the cvegetation and hydrology are re surface). The following indicate ered hydric.
Depth (inche narks: procedure o a was a weth sent. The are blematic soil	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4	dwest Reg is site mee ndscape p b4-Seasor	ion USACE [et the criteria iosition that is nally Ponded	Delineation for probler s likely to c Soils), the	Manual, matic hyc collect or refore the	, Chapter dric soils, concentr e soils in	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was used tors of hydrophyti (Part 3a - concav should be consid	ent? Yes X No d to evaluate soils to determine the c vegetation and hydrology are re surface). The following indicate ered hydric.
Depth (inche narks: e procedure o a was a weth sent. The are blematic soil DROLOG tland Hydro	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4 BY logy Indicators:	dwest Reg is site mee ndscape p b4-Seasor	ion USACE I et the criteria osition that is nally Ponded	Delineation for probled s likely to c Soils), the	Manual, natic hyd ollect or refore the	, Chapter dric soils, concentr e soils in	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was use tors of hydrophyti (Part 3a - concav should be consid	eent? Yes X No d to evaluate soils to determine th c vegetation and hydrology are re surface). The following indicat ered hydric.
Depth (inche narks: e procedure of a was a weth sent. The are blematic soil (DROLOG tland Hydro Primary Indio	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4 bY logy Indicators: cators (minimum of	dwest Reg is site mee ndscape p b4-Seasor	ion USACE I et the criteria iosition that is nally Ponded quired; check	Delineation for proble s likely to c Soils), the all that ap	Manual, matic hyc ollect or refore the	, Chapter dric soils, concentr e soils in	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was used tors of hydrophyti (Part 3a - concav should be consid Secondary	eent? Yes X No d to evaluate soils to determine th c vegetation and hydrology are re surface). The following indicat ered hydric.
Depth (inche narks: a procedure of a was a weth sent. The are oblematic soil DROLOG tland Hydro Primary Indio Surface V	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4 bY logy Indicators: cators (minimum of Vater (A1)	dwest Reg is site mee ndscape p b4-Seasor	ion USACE I et the criteria iosition that is nally Ponded quired; check Wate	Delineation for proble s likely to c Soils), the all that ap r-Stained L	Manual, natic hyc ollect or refore the ply) eaves (E	, Chapter dric soils, concentr le soils in 89)	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was used tors of hydrophyti (Part 3a - concav should be consid 	eent? Yes X No d to evaluate soils to determine to c vegetation and hydrology are re surface). The following indicat ered hydric.
Depth (inche narks: procedure of a was a weth sent. The arc olematic soil DROLOG tland Hydro Primary Indio Surface V X High Wat	es): described in the Mid and. The soils at th ea is located in a la s is present (Part 4 BY logy Indicators: cators (minimum of Vater (A1) er Table (A2)	dwest Reg is site mee ndscape p b4-Seasor	ion USACE [et the criteria iosition that is nally Ponded quired; check Wate Wate	Delineation for probler s likely to c Soils), the all that ap r-Stained L ic Fauna (Manual, natic hyc ollect or refore the ply) eaves (E B13)	, Chapter dric soils, concentr le soils in B9)	5, page 1 , as indica rate water this area	Hydric Soil Pres 13-117, was used tors of hydrophyti (Part 3a - concav should be considSecondarySurface 3Drainage	ent? Yes X No d to evaluate soils to determine to c vegetation and hydrology are re surface). The following indicat ered hydric.
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Depth (inche narks: e procedure of a was a wett sent. The arc olematic soil DROLOG tland Hydro Primary Indio Surface V X High Wate X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Id Observat face Water F ter Table Pre uration Press Iudes capilla scribe Record	es): described in the Mid and. The soils at the a is located in a la s is present (Part 4 FY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial I Vegetated Concave ions: Present? Yes ent? Yes ent? Yes ent? Yes	dwest Reg is site mee ndscape p b4-Seasor one is rec one is rec one is rec surface (X X auge, mor	ion USACE I et the criteria osition that is nally Ponded uired; check Aqua True J Aqua True J Oxidiz Prese Rece Thin I S7) Gaug (B8) Other No X No No	Delineation for problet s likely to o Soils), the all that ap r-Stained L ic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Ren fuck Surfa e or Well I (Explain in Depth (i Depth (i Depth (i Depth (i	Manual, natic hyc ollect or refore the enderse (E B13) ants (B14 e Odor (f pheres c duced Irc duced Irc duction in ace (C7) Data (D9) n Remark nches) nches) os, previo	, Chapter dric soils, concentr e soils in B9) 4) C1) on Living on (C4) n Tilled So) ks) 6" 0"	F 5, page 1 , as indica rate water this area Roots (C3 oils (C6) Wetland ections), if	Hydric Soil Pres	sent? Yes X No d to evaluate soils to determine to c vegetation and hydrology are resurface). The following indicatered hydric. Indicators (minimum of two requised hydric) Indicators (minimum of two requised hydric). Indicators (minimum of two requised hydric) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) Burrows (C8) On Visible on Aerial Imagery (C9) Sor Stressed Plants (D1) Ohic Position (D2) Utral Test (D5) Sent? Sent? Yes X No

Project/Site: Lincol	Project/Site: Lincolnway Industrial Rail					on County		Sampling Date:		11/10/2015
Applicant/Owner:	Clinton Dev	elopment				State:	IA	Sampling Point:		4
Investigator(s):	I. Leonard, A.	Cherko				Se	ection,	Township, Range:	S24,	T81N, R5E
Landform (hillslope, t	errace, etc.):	Farm field		Local re	lief (concav	e, convex, no	ne): I	None		
Slope (%): 1-2	Lat:	41.804727		Long:	-9	0.316578		Datum:	UTN	183
Soil Map Unit Name:	133 - Colo s	ilty clay loam, 0 t	o 2% sl	opes			NW	/I classification:		None
Are climatic / hydrolo	gic conditions	on the site typical	for this	time of year?	Yes X	No	(If r	no, explain in Remarks	5)	
Are Vegetation	, Soil, c	r Hydrology	signifi	cantly disturbe	d? Ar	e "Normal Cir	cumsta	ances" present? Yes	Х	No
Are Vegetation	, Soil , c	r Hydrology	natura	ally problemation	;? (If	needed, expla	ain any	answers in Remarks.)	
SUMMARY OF F	INDINGS -	Attach site m	ap sh	owing sam	pling poi	nt locatior	ns, tra	ansects, importa	nt fe	atures, etc.
Hydrophytic Vegetation	on Present?	Yes	No	Х						
Hydric Soil Present?		Yes	No	Х	Is the Sam	pled Area				
Wetland Hydrology P	resent?	Yes	No	Х	within a W	/etland?		Yes N	lo	X
Remarks:										
Outpoint for SP 3										
VEGETATION -	Use scienti	fic names of	olants							

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:30') 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
2 3 4				Total Number of Dominant Species Across All Strata:	2	(B)
5 Sapling/Shrub Stratum Plot size: 15	' <u>)</u>	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	0%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	—
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Bromus inermis	60	Х	FACU	UPL species	x 5 =	
2. Festuca arundinacea	40	X	UPL	Column Totals:	(A)	(B)
3				Prevalence Index = B/A	=	
4				Hydrophytic Vegetation Indicate	ors:	
5				1 - Rapid Test for Hydrophyti	ic Vegetation	
6				2 - Dominance Test is >50%	ovegetation	
7				3 - Prevalence Index is <3.01		
8				4 - Morphological Adaptation	s ¹ (Provide suppo	rtina
9.				data in Remarks or on a sep	arate sheet)	iting
10.				Problematic Hydrophytic Vec	getation ¹ (Explain)	
	100	= Total Cover			,	
Woody Vine Stratum (Plot size: 30'	_)			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology mus ematic.	t be
2		= Total Cove)r	Hydrophytic Vegetation Yes Present?	<u>No X</u>	_

Depth	main							
inches)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 3/2	100					Loam	
be: C=Cond	centration, D=De	oletion, RM	Reduced Ma	trix, MS=Mas	ked Sand Gra	ins.	² Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:						Indicators for	Problematic Hydric Soils ³ :
Histosol (A1)			Sandy	Gleved Matrix	(S4)	Coast Pr	airie Redox (A16)
Histic Ep	ipedon (A2)			Sandy	Redox (S5)	(-)	Dark Sur	face (S7)
Black His	tic (A3)			Strippe	d Matrix (S6)		Iron-Man	iganese Masses (F12)
Stratified				Loamy	Cloved Matrix	(F2)	Other (E	allow Dark Surface (TFTZ)
	Layers $(A3)$			Doplet	d Motrix (E2)	(12)		xpiain in Kentarks)
	K (ATU) Dalaw Dark Curf	(/ / / /)		Depiete	o Malix (FS)			
	Below Dark Suri	ace (ATT)				(FO)	31	
	ik Sunace (A12)					е (г <i>т)</i>	wetland	d hydrology must be present
	ucky Mineral (S1	·		Redox	Depressions (I	F8)	unless	disturbed or problematic.
5 cm Muo	cky Peat or Peat	(S3)						
Type: Depth (inche narks:	es):					F	lydric Soil Presen	nt? Yes NoX
Type: Depth (inche narks:	es):					ŀ	lydric Soil Presen	t? Yes No _X
Type: Depth (inche narks: DROLOC	es):					ŀ	lydric Soil Presen	t? Yes <u>No X</u>
Type: Depth (inche narks: DROLOC	es): SY blogy Indicators					F	lydric Soil Presen	t? Yes No _>
Type: Depth (incher narks: DROLOC Iand Hydro Primary Indi	es): SY plogy Indicators cators (minimum	of one is r	equired; check	all that apply	()	F	lydric Soil Presen	t? Yes <u>No</u>
Type: Depth (inche narks: DROLOG Iand Hydro Primary Indi Surface V	es): GY blogy Indicators cators (minimum Vater (A1)	of one is r	equired; check	all that apply	/) aves (B9)	F	lydric Soil Presen	t? Yes No _>
Type: Depth (inche narks: DROLOC Eland Hydro Primary Indi Surface V High Wat	es): Comparison of the set of th	of one is r	equired; check Wate Aqua	all that apply r-Stained Lea tic Fauna (B1	/) aves (B9) 3)		lydric Soil Presen	t? Yes No _>
Type: Depth (inche narks: DROLOC land Hydro Primary Indi Surface V High Wat Saturatio	es): blogy Indicators cators (minimum Vater (A1) ter Table (A2) n (A3)	of one is r	equired; check Wate Aqua True	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan	/) aves (B9) 3) ts (B14)	F	Lydric Soil Presen	t? Yes No _>
Type: Depth (incher narks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio Water Ma	es): blogy Indicators cators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1)	of one is r	equired; check Wate Aqua True Hydro	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plant ogen Sulfide (/) aves (B9) 3) ts (B14) Odor (C1)	F	Lydric Soil Presen	t? Yes No dicators (minimum of two requind il Cracks (B6) atterns (B10) n Water Table (C2) irrows (C8)
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Type: Depth (incher harks: DROLOC Hand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat	es): blogy Indicators cators (minimum Vater (A1) rer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4)	of one is r	equired; check Wate Aqua True Hydru Oxidi Prese Rece	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide of zed Rhizosph ance of Redu nt Iron Reduc	/) aves (B9) 3) ts (B14) Odor (C1) heres on Living ced Iron (C4) ction in Tilled S	g Roots (C3) Soils (C6)	Secondary Inc. Secondary Inc. Surface So Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or 3 Geomorphi	t? Yes No ticators (minimum of two requ il Cracks (B6) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Type: Depth (incher harks: DROLOC Hand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Depu Algal Mat Iron Depo	es): blogy Indicators cators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5)	of one is r	equired; check Wate Aqua True Hydru Oxidi Preso Rece Thin	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide (zed Rhizosph ence of Redu nt Iron Reduc Muck Surface	/) aves (B9) 3) ts (B14) Odor (C1) neres on Living ced Iron (C4) ction in Tilled S e (C7)	g Roots (C3) Soils (C6)	Secondary Inc. Secondary Inc. Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or 3 Geomorphic FAC-Neutra	t? Yes No dicators (minimum of two requination of two requination of two requinations (B6) atterns (B10) atterns (B10) atterns (B10) atterns (B10) with the trade (C2) with the trade
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Type: Depth (incher harks: DROLOC dand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Dept Algal Mat Iron Depo Inundatio Sparsely	es): blogy Indicators cators (minimum Vater (A1) rer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aeria Vegetated Conce	of one is r al Imagery ave Surface	equired; check Wate Aqua True Hydru Oxidi Prese Rece Thin (B7) Gaug 3 (B8) Othe	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide of zed Rhizosph ence of Redu nt Iron Reduc Muck Surface je or Well Da r (Explain in F	/) aves (B9) (3) ts (B14) Odor (C1) neres on Living ced Iron (C4) ction in Tilled S e (C7) ta (D9) Remarks)	g Roots (C3) Soils (C6)	Aydric Soil Presen	t? Yes No dicators (minimum of two requ il Cracks (B6) atterns (B10) n Water Table (C2) irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Type: Depth (incher harks: DROLOC Primary Indi Surface V High Wat Saturatio Water Ma Saturatio Drift Depu Algal Mat Iron Depo Inundatio Sparsely d Observat face Water	es): blogy Indicators cators (minimum Vater (A1) rer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aeria Vegetated Conce tions: Present? Y esent? Y	al Imagery NVE Surface es es	equired; check Wate Aqua True Hydru Oxidi Prese Rece Thin (B7) Gaug 3 (B8) Othe No X No X	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide 0 zed Rhizosph ence of Redu nt Iron Reduc Muck Surface je or Well Da r (Explain in F Depth (inc Depth (inc	/) aves (B9) 3) ts (B14) Odor (C1) heres on Living ced Iron (C4) ction in Tilled S e (C7) ta (D9) Remarks) thes)	g Roots (C3) Soils (C6)	Aydric Soil Presen	t? Yes No dicators (minimum of two requination of two requinations) il Cracks (B6) atterns (B10) in Water Table (C2) irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Type: Depth (incher harks: DROLOC Primary Indi Surface V High Wat Saturatio Water Ma Saturatio Drift Depr Algal Mat Iron Depo Inundatio Sparsely d Observat face Water er Table Pr uration Pres udes capilla cribe Recor	es): Dlogy Indicators cators (minimum Vater (A1) rer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aeria Vegetated Conca tions: Present? Y esent? Y esent? Y err? Y err? Y err ? Y	al Imagery ave Surface es es i gauge, m	equired; check 	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide zed Rhizosph ence of Redu nt Iron Reduc Muck Surface je or Well Da r (Explain in F Depth (inc Depth (inc Depth (inc aerial photos	/) aves (B9) (3) ts (B14) Odor (C1) heres on Living ced Iron (C4) tion in Tilled S e (C7) ta (D9) Remarks) thes) thes)	g Roots (C3) Soils (C6) Wetland	Aydric Soil Present Secondary Inc. Surface Soil Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or S Geomorphic FAC-Neutra	t? Yes No _ >
Type: Depth (incher harks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift Dept Algal Mat Iron Dept Inundatio Sparsely d Observat race Water er Table Pr uration Pres udes capilla cribe Recor	es): Composition (Composition) Composition (Co	al Imagery ave Surface es es es i gauge, m	equired; check Wate Aqua True Hydru Oxidi Prese Rece Thin (B7) Gaug 9 (B8) Othe No X No X No X No X No X	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plam ogen Sulfide ced Rhizosph ence of Redu nt Iron Reduc Muck Surface je or Well Da r (Explain in F Depth (inc Depth (inc Depth (inc aerial photos	/) aves (B9) (3) ts (B14) Odor (C1) neres on Living ced Iron (C4) ction in Tilled S (C7) ta (D9) Remarks) thes) thes) thes)	g Roots (C3) Soils (C6) Wetland		tr? Yes NoX
Type: Depth (incher narks: DROLOC Primary Indi Surface V High Wat Saturatio Water Ma Saturatio Drift Depr Algal Mat Iron Depc Inundatio Sparsely d Observat face Water rer Table Pr uration Press udes capilla cribe Recor	es): Dlogy Indicators cators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aeria Vegetated Conca tions: Present? Present? Y eart? Y eart? Y ary fringe) ded Data (stream	al Imagery ave Surface es es i gauge, m	equired; check Wate Aqua True Hydr Oxidi Presa NoX NoX NoX NoX NoX NoX NoX NoX NoX	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plan ogen Sulfide zed Rhizosph ence of Redu nt Iron Reduc Muck Surface je or Well Da r (Explain in F Depth (inc Depth (inc Depth (inc aerial photos	/) aves (B9) (3) ts (B14) Odor (C1) heres on Living ced Iron (C4) ttion in Tilled S e (C7) ta (D9) Remarks) thes)	g Roots (C3) Soils (C6) Wetland	Aydric Soil Present Secondary Inc. Surface Soil Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or 3 Geomorphi FAC-Neutra	t? Yes No dicators (minimum of two requination in the image of the image

Project/Site: Lincolnway Industri	al Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clinton Deve	elopment		State: L	A Sampling Point:	5
Investigator(s): M. Leonard, A.	Cherko		Sect	ion, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, etc.):	Farm Field	Local relief (c	oncave, convex, none)	: Concave	
Slope (%): 1-2 Lat:	41.803273	Long:	-90.316578	Datum:	UTM83
Soil Map Unit Name: 351 - Atterbe	erry silt loam, sandy sustraur	m 0 to 2% slop	es	NWI classification:	None
Are climatic / hydrologic conditions	on the site typical for this time	of year? Yes	X No	(If no, explain in Remarks))
Are Vegetation, Soil, c	or Hydrologysignificantly	y disturbed?	Are "Normal Circur	mstances" present? Yes	X No
Are Vegetation , Soil , c	r Hydrologynaturally pr	roblematic?	(If needed, explain	any answers in Remarks.))
SUMMARY OF FINDINGS -	Attach site map showing	ng sampling	g point locations,	transects, importar	nt features, etc.
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes X No	Is th	e Sampled Area		
Wetland Hydrology Present?	Yes X No	with	in a Wetland?	Yes <u>X</u> No	o
Remarks:					
Wetland 9 is a PEMA farmed wetlar	nd in agricultural field.				

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	2	(Δ)
2 3 4				Total Number of Dominant Species Across All Strata:	2	(R)
5. <u>Sapling/Shrub Stratum</u> Plot size: 15 1.	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	_
5.				FACW species	x 2 =	_
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Carex sp.	30	X	UPL-OBL	UPL species	x 5 =	
2. Equisetum laevigatum	10	Х	FACW	Column Totals:	(A)	(B)
3. Scirpus atrovirens	5		OBL	Prevalence Index = B/A	=	_
4				Hydrophytic Vegetation Indicat	ors:	
5				1 - Rapid Test for Hydrophyt	ic Vegetation	
6				\overline{X} 2 - Dominance Test is >50%		
7				3 - Prevalence Index is <3.0	1	
8				4 - Morphological Adaptation	ns ¹ (Provide suppor	tina
9				 data in Remarks or on a sep 	arate sheet)	
10.				Problematic Hydrophytic Veg	getation ¹ (Explain)	
	45	= Total Cover				
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	and hydrology must ematic.	be
2		= Total Cove	er	Hydrophytic Vegetation Yes Present?	XNo	
Remarks: (Include photo numbers here or on	a separate	sheet.)				

PP 11 - North

5

Profile Descrip	otion: (Describe to Matrix	the depth I	needed to doc	ument the in Redox Fea	ndicator or	confirm	the absence of ind	licators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10 YR 2/1	100			71		Clay Loam	
							<u> </u>	
		·					• • • • • • • • • • • • • • • • • • •	
¹ Type: C=Cond	centration, D=Deple	tion, RM=R	educed Matrix,	MS=Masked	l Sand Grair	ıs.	² Location: PL=F	Pore Lining, M=Matrix
Hydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A1)			Sandy Gle	yed Matrix (S4)	Coast P	rairie Redox (A16)
Histic Epi	pedon (A2)			- Sandy Red	dox (S5)		Dark Su	Irface (S7)
Black His	tic (A3)			- Stripped M	latrix (S6)		Iron-Ma	nganese Masses (F12)
Hydroger	sulfide (A4)			Loamy Mu	cky Mineral	(F1)	Very Sh	allow Dark Surface (TF12)
Stratified	Layers (A5)			Loamy Gle	eyed Matrix ((F2)	X Other (E	Explain in Remarks)
2 cm Mu	ck (A10)			Depleted N	/latrix (F3)			
Depleted	Below Dark Surfac	e (A11)		Redox Dar	k Surface (F	-6)		
Thick Da	rk Surface (A12)			Depleted D	Dark Surface	e (F7)	³ Indicators	of hydrophytic vegetation and
Sandy Mu	ucky Mineral (S1)			Redox Dep	pressions (F	8)	wetlar	id hydrology must be present,
5 cm Muc	cky Peat or Peat (S	3)	_	-			uniess	alsturbed or problematic.
Restrictive Lay	/er (if observed):							
Туре:	Wa	ter						
Depth (inche	es):	5					Hydric Soil Prese	nt? Yes X No
Remarks [.]								
The procedure area was a weth present. The ar problematic soil	described in the Mid and. The soils at th ea is located in a la ls is present (Part 4	dwest Regio is site meet ndscape po b4-Seasona	n USACE Delir the criteria for sition that is like ally Ponded Soil	neation Manu problematic ely to collect (s), therefore	ual, Chapter hydric soils, or concentr the soils in	5, page 1 as indica ate water this area	113-117, was used tors of hydrophytic (Part 3a - concave should be consider	to evaluate soils to determine the vegetation and hydrology are surface). The following indicator of ed hydric.
HYDROLOG	SY							
Wetland Hydro	logy Indicators:							
Primary Indi	cators (minimum of	one is requ	ired; check all t	hat apply)			Secondary In	dicators (minimum of two required)
Surface V	Vater (A1)	·	Water-Sta	ained Leaves	s (B9)		Surface So	pil Cracks (B6)
X High Wat	er Table (A2)		Aquatic F	auna (B13)			Drainage F	Patterns (B10)
X Saturation	n (A3)		True Aqu	atic Plants (I	B14)		Dry-Seaso	n Water Table (C2)
Water Ma	arks (B1)		Hydrogen	Sulfide Odd	or (C1)		Crayfish B	urrows (C8)
Sediment	t Deposits (B2)		Oxidized	Rhizosphere	es on Living	Roots (C3	3) Saturation	Visible on Aerial Imagery (C9)
Drift Depo	osits (B3)		Presence	of Reduced	l Iron (C4)		Stunted or	Stressed Plants (D1)
Algal Mat	or Crust (B4)		Recent Ire	on Reduction	n in Tilled So	oils (C6)	X Geomorph	ic Position (D2)
Iron Depo	osits (B5)		Thin Muc	k Surface (C	;7)		X FAC-Neutr	al Test (D5)
Inundatio	n Visible on Aerial I	magery (B7)Gauge or	Well Data (I	D9)		—	
Sparsely	Vegetated Concave	e Surface (B	8) Other (Ex	plain in Rem	narks)			
Field Observat	ions:							
Surface Water	Present? Yes	N	No <u>X</u> □	epth (inches	3)			
Water Table Pr	esent? Yes	X N	No D	epth (inches	s) <u>5</u> "			
Saturation Pres	ent? Yes	<u> </u>		epth (inches	s) <u> </u>	Wetland	d Hydrology Prese	nt? Yes X No
(includes capilla	ary fringe) ded Data (stream o	auge monit	oring well aeria	al photos pr	evious inspe	ections) if	f available:	
Remarks:								

Project/Site: Lincolnway Inc	lustrial Rail	City/County:	Clinton County	Sampling Date:	11/10/2015
Applicant/Owner: Clinton	Development		State:	IA Sampling Point:	6
Investigator(s): M. Leonar	rd, A. Cherko		Se	ction, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace, et	tc.): Farm field	Local relief (c	oncave, convex, non	e): None	
Slope (%): 1-3 Lat:	41.802987	Long:	-90.317501	Datum:	UTM83
Soil Map Unit Name: 351 - A	tterberry silt loam, sandy sustra	um 0 to 2% slop	es	NWI classification:	None
Are climatic / hydrologic condi	tions on the site typical for this time	e of year? Yes	X No	(If no, explain in Remarks)
Are Vegetation, Soil	, or Hydrologysignifican	tly disturbed?	Are "Normal Circ	umstances" present? Yes	X No
Are Vegetation , Soil	, or Hydrology naturally	problematic?	(If needed, expla	in any answers in Remarks.)
SUMMARY OF FINDING	GS - Attach site map show	ing sampling	g point location	s, transects, importa	nt features, etc.
Hydrophytic Vegetation Prese	nt? Yes No X	(
Hydric Soil Present?	Yes No X	(Is th	e Sampled Area		
Wetland Hydrology Present?	Yes NoX	لا with	in a Wetland?	Yes N	• <u>X</u>
Remarks:					
Outpoint for SP 5					
VEGETATION - Use sci	ientific names of plants.				

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Iree Stratum (Plot size:) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
234				Total Number of Dominant Species Across All Strata:	1	(B)
5 Sapling/Shrub Stratum Plot size: 1.	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	0%	(A/B)
2.				Prevalence Index worksheet:		
3.		·		Total % Cover of:	Multiply by:	
4.		·		OBL species	x 1 =	—
5		- <u> </u>		FACW species	x 2 =	_
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')		•		FACU species	x 4 =	
1. Zea Mays	45	Х	UPL	UPL species	x 5 =	
2.		·		Column Totals:	(A)	(B)
3.		. <u> </u>		Prevalence Index = B/A =	=	_``
4.				Hydrophytic Vogotation Indicate		
5.				1 Depid Test for Ludrephytic	ns.	
6.				- 1 - Rapid Test for Hydrophytic	c vegetation	
7.				2 - Dominance Test is >50%		
8.				3 - Prevalence Index Is <3.0"	1 (Duas ida as un a su	1
9.				data in Remarks or on a sepa	arate sheet)	.ing
10		- <u> </u>		Problematic Hydrophytic Veg	etation ¹ (Explain)	
	45	= Total Cover			(_,p.a)	
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetlar present, unless disturbed or proble	nd hydrology must matic.	be
2.		·		Hydrophytic		
		= Total Cove	er	Vegetation Yes Present?	<u>No X</u>	

Depth							_		
(inches)	Color (moist)	%	Color (mois	t) %	Type ¹	Loc ²	Texture	Rem	arks
0-20	10 YR 2/1	100					Clay Loam		
						_			
be: C=Cond	centration, D=Deple	tion, RM=Re	duced Matri	x, MS=Maske	d Sand Grair	1S. 2	Location: PL=Po	re Lining, M=Ma	atrix
lydric Soil	Indicators:						Indicators for	Problematic H	vdric Soils ³ :
Histosol	(A1)			Sandy Gle	eved Matrix (S4)	Coast Pra	irie Redox (A16	;)
Histic En	inedon (A2)			Sandy Re	dox (S5)	01)	Dark Surf	ace (S7)	')
- Black His	(A_2)			Strippod N	Aotrix (S6)		Iron Man		(E12)
	$\frac{1}{2} = \frac{1}{2} = \frac{1}$								(F1Z)
- Hydroger	1 Suilide (A4)				ucky ivilneral ovod Motrix ((F1) F2)	Very Shar	low Dark Surrad	c)
	Layers(A3)				Gyeu Matrix (Motrix (E2)	1 <i>∠)</i>			.5)
	DR (AIU)	~ (\ 1 1 \			ividli IX (F3)	()			
		e (ATT)		Redox Da	in Sufface (F	ט) (רד)	31	f budennbude	antotion
	ik Sunace (A12)				Dark Sufface	(<i>F1</i>)	indicators o	hvdrology must	be present
Sandy M	ucкy mineral (S1)	•		Kedox De	pressions (F	ö)	unless	listurbed or prol	plematic.
5 cm Mu	cky Peat or Peat (S	3)							
Type: Depth (inchennerstein	es):					Нуа	dric Soil Present	? Yes	No
Type: Depth (inche	es):					Нус	dric Soil Present	? Yes	No
Depth (inche narks:	es):					Нус	dric Soil Present	? Yes	No
Type: Depth (inchr narks: DROLOC	es): SY blogy Indicators:					Нус	dric Soil Present	? Yes	No
Type: Depth (inchomenance) narks: DROLOC land Hydroc Primary Indi	BY blogy Indicators: icators (minimum o	f one is requi	red; check a	II that apply)		Нус	Secondary Indi	? Yes	No)
Depth (incher Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V	BY blogy Indicators: icators (minimum o Water (A1)	f one is requi	red; check a Water-t	II that apply) Stained Leave	es (B9)	Нус	Secondary Indi	? Yes	No>
Depth (inche narks: DROLOC land Hydro Primary Indi Surface V High Wat	BY blogy Indicators: icators (minimum o Nater (A1) ter Table (A2)	f one is requi	red; check a Water-1	II that apply) Stained Leave Fauna (B13)	es (B9)	Нус	Secondary Indi	? Yes cators (minimur Cracks (B6) tterns (B10)	No /
Depth (inche harks: DROLOC land Hydro Primary Indi Surface V High Wat Saturatio	BY blogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3)	f one is requi	red; check a Water-3 Aquatio True Ad	II that apply) Stained Leave Fauna (B13) quatic Plants (es (B9) (B14)	Нус	Secondary Indi Surface Soil Drainage Pa Dry-Season	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C	No n of two requ
Depth (incher Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V Surface V High Wate Saturatio Water Ma	BY blogy Indicators: icators (minimum o Water (A1) ter Table (A2) n (A3) arks (B1)	f one is requi	red; check a Water Aquatic True Ao Hydrog	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od	es (B9) (B14) or (C1)	Нус	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8)	n of two requ
Depth (incher Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V High Wate Saturatio Water Ma Sedimen	BY blogy Indicators: icators (minimum o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	f one is requi	red; check a Water Aquatic True Ac Hydrog Oxidize	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher	es (B9) (B14) lor (C1) es on Living	Hyd	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial	No>
Depth (incher Depth (incher Darks: DROLOC Dand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	BY blogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	f one is requi	red; check a Water-3 Aquatic True Ac True Ac Uydrog Oxidize Presen	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduce	es (B9) (B14) or (C1) es on Living d Iron (C4)	Roots (C3)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants	<u>No</u> <u>)</u> n of two requ 2) Imagery (C9)
Depth (inche Depth (inche Darks: DROLOC Darks: DROLOC Drimary Indi Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	BY blogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	f one is requi	red; check a Water-3 Aquatic True Ac Hydrog Oxidize Presen Recent	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduced Iron Reducto	es (B9) (B14) for (C1) es on Living d Iron (C4) on in Tilled So	Hyo Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2)	No) n of two requ 2) Imagery (C9) (D1)
Depth (inche narks: DROLOC tland Hydro Primary Indi Surface V High Wate Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo	GY Dlogy Indicators: iccators (minimum o Water (A1) icer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	f one is requi	red; check a Water- Aquatic True Ad Hydrog Oxidize Presen Recent Thin M	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduced Iron Reductic uck Surface ((es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So C7)	Hyo Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	No>
Depth (incher Depth (incher Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Saturatio Water Ma Saturatio Drift Dep Algal Mat Iron Depo Inundatio	GY Diogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial	f one is requi	red; check a Water-3 Aquatio True Ao Hydrog Oxidize Presen Recent Thin Mi Gauge	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduce Iron Reductic uck Surface ((or Well Data	es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9)	Roots (C3)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	n of two requ 2) Imagery (C9)
Depth (incher Depth (incher Darks: DROLOC Iand Hydro Primary Indi Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely	SY Dogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave	f one is requi	red; check a Water-3 Aquatic True Ad Hydrog Oxidize Presen Recent Thin M Gauge 3) Other (II that apply) Stained Leave Fauna (B13) quatic Plants of en Sulfide Od d Rhizospher ce of Reduced Iron Reductio uck Surface (f or Well Data Explain in Rer	es (B9) (B14) for (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9) marks)	Hyo Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	n of two requ 2) Imagery (C9)
Type:	BY Dlogy Indicators: icators (minimum o Water (A1) icer Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) it or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions:	f one is requi	red; check a Water-3 Aquatic True Ad Hydrog Oxidize Presen Recent Thin Mi Gauge 3) Other (II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduced Iron Reductic uck Surface ((or Well Data Explain in Rer	es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9) marks)	Roots (C3) pils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	No>
Type:	GY Diogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions: Present? Yes	f one is requi	red; check a Water-3 Aquatic True Ad Hydrog Oxidize Presen Recent Thin Mi Gauge 3) Other (II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduce Iron Reductic uck Surface ((or Well Data Explain in Rer Depth (inche	es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9) marks)	Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	n of two requ 2) (D1)
Type: Depth (inchemarks: DROLOC tland Hydro Primary Indi Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely d Observat face Water Table Pr	BY Bology Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions: Present? Yes	f one is requi	red; check a Water-3 Aquatic True Ac Hydrog Oxidize Presen Recent Thin M Gauge 3) Other (II that apply) Stained Leave Fauna (B13) quatic Plants of en Sulfide Od d Rhizospher ce of Reduced Iron Reductio uck Surface (f or Well Data Explain in Rer Depth (inche Depth (inche	es (B9) (B14) for (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9) marks) es)	Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	n of two requ 2) Imagery (C9)
Type: Depth (inchemarks: DROLOC tland Hydro Primary Indi Surface V High Wate Saturatio Water Ma Sedimen Drift Depe Algal Mat Iron Depo Inundatio Sparsely d Observat face Water ter Table Pr uration Pres	SY Dogy Indicators: icators (minimum o Water (A1) ier Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions: Present? Yes sent? Yes	f one is requi	red; check a Water-3 Aquatic True Ad Hydrog Oxidize Presen Recent Thin M Gauge 3) Other (0 X 0 X	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduce Iron Reductio uck Surface ((or Well Data Explain in Rer Depth (inche Depth (inche	es (B9) (B14) lor (C1) es on Living d Iron (C4) on in Tilled Sc (C7) (D9) marks) 	Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	No>
Type: Depth (inchemarks: Depth (inchemarks: DROLOC tland Hydro Primary Indi Surface V High Wate Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely d Observat face Water ter Table Pr uration Press Iudes capilla	BY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions: Present? Yes sent? Yes ary fringe)	f one is requi	red; check a Water	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduced Iron Reductic uck Surface ((or Well Data Explain in Rer Depth (inche Depth (inche	es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So (C7) (D9) marks) (D9) marks)	Roots (C3) bils (C6)	Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5) ? Yes	No>
Type: Depth (inchemarks: Depth (inchemarks: DROLOC Eland Hydro Primary Indi Surface V High Wat Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely d Observat face Water ter Table Pr uration Press Iudes capilla cribe Recor	GY Diogy Indicators: icators (minimum o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concave tions: Present? Yes esent? Yes ary fringe) rded Data (stream of	f one is requi	red; check a Water-3 Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge 3) Other (0 X 0 X	II that apply) Stained Leave Fauna (B13) quatic Plants (en Sulfide Od d Rhizospher ce of Reduced Iron Reductio uck Surface ((or Well Data Explain in Rer Depth (inche Depth (inche Depth (inche	es (B9) (B14) or (C1) es on Living d Iron (C4) on in Tilled So (D9) marks) (D9) marks) (S) (C9) marks) (C9) marks)	Roots (C3) bils (C6) Wetland Hy	tric Soil Present Secondary Indi Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	? Yes cators (minimur Cracks (B6) tterns (B10) Water Table (C rows (C8) isible on Aerial tressed Plants Position (D2) Test (D5)	<u>No</u> <u>)</u> <u>n of two requ</u> 2) (D1) <u>No</u> <u>)</u>
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Project/Site: Lincolnw	ay Industrial	Rail		City/County	y: Clinton	County		Sampling Date:	11/10/2015
Applicant/Owner: C	linton Develo	opment		·		State:	IA	Sampling Point:	1
Investigator(s): M. L	.eonard, A. C	herko				S	ection	, Township, Range:	S24, T81N, R5E
Landform (hillslope, terra	ace, etc.):	Hillslope		Local relief	(concave, c	onvex, no	one):	Concave	
Slope (%): 3-4 L	_at:	41.80769	ò	Long:	-90.3	17198		Datum:	UTM83
Soil Map Unit Name: 13	33 - Colo silty	y clay loam, () to 2% slope:	s			N\	NI classification:	None
Are climatic / hydrologic	conditions on	the site typic	al for this time	of year? Ye	es X	No	(If	no, explain in Remarks)	
Are Vegetation,	Soil, or I	Hydrology	significantl	ly disturbed?	Are "N	√ormal Cir	rcums	tances" present? Yes	X No
Are Vegetation, S	Soil, or I	Hydrology	naturally p	roblematic?	(If nee	eded, expl	lain ar	y answers in Remarks.)	
SUMMARY OF FIN	IDI <mark>NGS</mark> - A	ttach site	map showi	ng sampli	ng point	location	ns, tı	ansects, importan	it features, etc.
Hydrophytic Vegetation I	Present?	Yes X	No						
Hydric Soil Present?		Yes X	No	ls '	the Sample	ed Area			
Wetland Hydrology Pres	ent?	Yes X	No	wit	thin a Wetl	and?		Yes <u>X</u> No	> <u> </u>
Remarks:									
Wetland 10 is a PEMA/C	C Wetland dra	ining south in	a swale to a p	ond.					

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
2 3 4 5 Sapling/Shrub Stratum Plot size: 1		= Total Cover		Total Number of Dominant Species Across All Strata: Percent of Dominant Species	1	(B)
	<u> </u>				100%	(А/Б)
2				Prevalence Index worksheet:		
3		· ·		Total % Cover of:	Multiply by:	
4				OBL species	x 1 =	
5				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Phalaris arundinacea	80	<u> </u>	FACW	UPL species	x 5 =	
2. Urtica dioica	10		FACW	Column Totals:	(A)	(B)
3. Typha latifolia	10		OBL	Prevalence Index = B/A	. =	_
4		· ·		Hydrophytic Vegetation Indica	tors:	
5				1 - Rapid Test for Hydrophy	tic Vegetation	
6				X 2 - Dominance Test is >50%	/ 0	
7				3 - Prevalence Index is <3.0)1	
8 9.		·		4 - Morphological Adaptation data in Remarks or on a seg	ns ¹ (Provide suppor parate sheet)	ting
10				Problematic Hydrophytic Ve	getation ¹ (Explain)	
Woody Vine Stratum (Plot size: 30' 1.)	= Iotal Cover		¹ Indicators of hydric soil and weth present, unless disturbed or prob	and hydrology must lematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes Present?	Х No	
Remarks: (Include photo numbers here or o	n a separate	sheet.)				

PP 12 - Southeast

E

Depth						~	•	
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 2/1	97	10 YR 4/6	3	С	М	Clay Loam	
8-16	10 YR 2/1	70	7.5 YR 4/6	5	С	М	Clay Loam	
	10 YR 3/2	25						
16-20	10 YR 3/2	100					Clay Loam	
				· · · · ·			21 (1) DI D	
e: C=Cond	centration, D=Dep	letion, RIVI=	Reduced Matrix, M	S=Masked	Sand Grail	ns.	Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:						Indicators for	Problematic Hydric Soils ³ :
Histosol ((A1)			Sandy Gley	ved Matrix ((S4)	Coast Pr	airie Redox (A16)
Histic Epi	ipedon (A2)			Sandy Red	ox (S5)		Dark Sur	face (S7)
Black His	stic (A3)		S	Stripped Ma	atrix (S6)		Iron-Man	ganese Masses (F12)
– Hydroger	n Sulfide (A4)			_oamy Muc	ky Mineral	(F1)	Very Sha	llow Dark Surface (TF12)
Stratified	Layers (A5)		— ₁	_oamy Gley	ed Matrix	(F2)	Other (E)	plain in Remarks)
 2 cm Muo	ck (A10)			Depleted M	atrix (F3)	. ,	_ `	
_ Depleted	Below Dark Surfa	ce (A11)	X	Redox Dark	Surface (I	F6)		
Thick Da	rk Surface (A12)		<u></u>	Depleted D	ark Surface	e (F7)	³ Indicators (of hydrophytic vegetation and
- Sandy Mi	ucky Mineral (S1)		—;	Reday Den	ressions (F	5 (I I) 58)	wetland	hydrology must be present,
	deky Mineral (31)	20)	—'	Cedux Dep	163310113 (1	0)	unless	disturbed or problematic.
ype: Depth (inche	es):						Hydric Soil Presen	t? Yes X No
Type: Depth (inche	es):						Hydric Soil Presen	t? Yes X No
Depth (inche	es):						Hydric Soil Presen	t? Yes <u>X</u> No
Depth (inche Darks: DROLOG	es): SY blogy Indicators:						Hydric Soil Presen	t? Yes X No
Depth (inche narks: DROLOG land Hydro Primary Indi	BY Dlogy Indicators:	of one is rea	quired; check all that	at apply)			Hydric Soil Presen	t? Yes X No
ype: Depth (inche narks: DROLOG Iand Hydro Primary Indi Surface V	ESY Dlogy Indicators: icators (minimum of Water (A1)	of one is rea	quired; check all that Water-Stair	at apply)	(B9)		Hydric Soil Presen	t? Yes X No icators (minimum of two requ I Cracks (B6)
Depth (inche harks: DROLOG land Hydro Primary Indi Surface V High Wat	BY blogy Indicators: Water (A1) ter Table (A2)	of one is rea	quired; check all tha Water-Stair Quatic Fau	at apply) ned Leaves una (B13)	(B9)		Hydric Soil Presen	t? Yes X No icators (minimum of two requ I Cracks (B6) atterns (B10)
ype: Depth (incher narks: DROLOG Iand Hydro Primary Indi Surface V High Wat Saturatio	GY GY Diogy Indicators: icators (minimum Water (A1) ter Table (A2) n (A3)	of one is rea	quired; check all tha Water-Stair Aquatic Fau True Aquati	at apply) ned Leaves una (B13) c Plants (B	(B9) 314)		Hydric Soil Presen	t? Yes X No icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2)
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Depth (inche Depth (inche larks: DROLOG rimary Indi Surface V High Wat Saturation Water Ma Sadiment	GY Diogy Indicators: icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	of one is rea	quired; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S	at apply) ned Leaves una (B13) c Plants (B Sulfide Odo	(B9) 314) r (C1)	Poots (C	Hydric Soil Presen	t? Yes X No icators (minimum of two requ l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
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ype: Depth (incher narks: DROLOG Iand Hydro Primary Indi Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	GY blogy Indicators: icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	of one is re	quired; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rł Presence o Recent Iron	at apply) ned Leaves una (B13) c Plants (B sulfide Odo nizospheres f Reduced Reduction	(B9) 314) r (C1) s on Living Iron (C4) i in Tilled S	Roots (C3 oils (C6)	Hydric Soil Presen Secondary Ind Surface Soi X Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	t? Yes X No icators (minimum of two requ l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
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preserverse preserverse preserverse primary Indi Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mate Iron Depo Inundatio	GY Diogy Indicators: icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) psits (B5) on Visible on Aeria	of one is rea	quired; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rł Presence o Recent Iron Thin Muck S 37) Gauge or W	at apply) ned Leaves una (B13) ic Plants (B Sulfide Odo nizospheres f Reduced Reduction Surface (Ci /ell Data (D	(B9) 114) r (C1) s on Living Iron (C4) i in Tilled S 7) 09)	Roots (C3	Hydric Soil Presen	t? Yes X No icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
ype: Depth (inche harks: DROLOG land Hydro Primary Indi Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely	BY Dlogy Indicators: icators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aeria Vegetated Conca	of one is read	quired; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rł Presence o Recent Iron Thin Muck S 37) Gauge or W (B8) Other (Expl	at apply) ned Leaves una (B13) ic Plants (B Sulfide Odo nizospheres f Reduced Reduction Surface (Ci /ell Data (D ain in Rem	(B9) r (C1) s on Living Iron (C4) i in Tilled S 7) D9) arks)	Roots (C3	Hydric Soil Presen Secondary Ind Surface Soi X Drainage Pa Dry-Season Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	t? Yes X No icators (minimum of two requ l Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
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Project/Site: Lincoln	nway Industr	ial Rail		City/Co	unty:	Clinton	County		Sampling Date:	1	1/10/2015
Applicant/Owner:	Clinton Dev	elopment					State:	IA	Sampling Point:		2
Investigator(s): M	. Leonard, A	. Cherko					S	ectior	n, Township, Range:	S24,	T81N, R5E
Landform (hillslope, te	errace, etc.):	Hillslope		Local re	lief (c	oncave,	convex, no	ne):	None		
Slope (%): 3-4	Lat:	41.807726		Long:		-90.	317084		Datum:	UTM	83
Soil Map Unit Name:	133 - Colo s	ilty clay loam, 0 to	o 2% sl	opes				N	WI classification:		None
Are climatic / hydrolog	gic conditions	on the site typical	for this	time of year?	Yes	Х	No	(If	no, explain in Remarks	5)	
Are Vegetation	, Soil,	or Hydrology	signific	cantly disturbe	d?	Are "	Normal Cir	cums	tances" present? Yes	X	No
Are Vegetation	, Soil , o	or Hydrology	natura	Ily problematio	?	(If ne	eded, expl	ain ar	ny answers in Remarks.	.)	
SUMMARY OF F	INDINGS -	Attach site m	- ap sh	owing sam	pling	g point	locatio	ns, ti	ransects, importa	nt fea	atures, etc.
Hydrophytic Vegetatio	n Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	ls th	e Sampl	led Area				
Wetland Hydrology Pr	resent?	Yes	No	Х	with	in a Wet	tland?		Yes N	lo	X
Remarks:											
Outpoint for SP 1											
VEGETATION - U	Jse scient	ific names of p	olants								

Iree Stratum (Plot size: 30°) % Cover Species? Status Number of Dominant Species That 1.	_ (A) _ (B) _ (A/B)
2.	_ (A/B)
3.	(B) (A/B)
4.	_ (B) _ (A/B)
5.	(A/B)
Sapling/Shrub Stratum Plot size: 15' 1.	(A/B)
Sapling/Shrub Stratum Plot size: 15') 1.	_ (A/B)
1.	
2.	
3.	
4.	<u> </u>
5.	
Herb Stratum (Plot size: 5') 1. Bromus inermis 80 X FACU 2. Cirsium arvense 10 FACU 3. Alopecurus carolinianus 10 FACW 4. 10 FACW 5. 10 FACW 6. 1 Rapid Test for Hydrophytic Vegetation 7. 1 Rapid Test for Hydrophytic Vegetation	
Herb Stratum (Plot size: 5') 1. Bromus inermis 80 X FACU 2. Cirsium arvense 10 FACU 3. Alopecurus carolinianus 10 FACW 4. 10 FACW 5. 10 FACW 6. 1 Rapid Test for Hydrophytic Vegetation 7. 1 Rapid Test is >50% 3. Prevalence Index is <3.01	
1. Bromus inermis 80 X FACU UPL species x 5 = 2. Cirsium arvense 10 FACU Column Totals: (A) 3. Alopecurus carolinianus 10 FACW Prevalence Index = B/A = 4.	
2. Cirsium arvense 10 FACU Column Totals: (A) 3. Alopecurus carolinianus 10 FACW Prevalence Index = B/A = 4.	
3. Alopecurus carolinianus 10 FACW Prevalence Index = B/A = 4.	(B)
4.	
5.	
6 2 - Dominance Test is >50% 7 3 - Prevalence Index is <3.01	
7 3 - Prevalence Index is <3.01	
8 4 - Morphological Adaptations ¹ (Provide supp	orting
9 data in Remarks or on a separate sheet)	0
10. Problematic Hydrophytic Vegetation ¹ (Explain)
100 = Total Cover	
Woody Vine Stratum (Plot size: 30') ¹ Indicators of hydric soil and wetland hydrology mu	st be
2. Hydrophytic	
= Total Cover Vegetation Yes No X Present?	

Depth	Iviati				· oataroo			
(inches)	Color (moist)	%	Color (mo	oist) %	5 Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 2/2	100					Clay Loam	
be: C=Con	centration, D=De	pletion, RM	Reduced Ma	trix, MS=Ma	sked Sand Gr	ains.	² Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy	Gleved Matri	x (S4)	Coast P	rairie Redox (A16)
Histic Ep	ipedon (A2)			Sandv	Redox (S5)	(-)	Dark Su	rface (S7)
Black His	stic (A3)			Strippe	d Matrix (S6)		Iron-Mar	nganese Masses (F12)
	= Cultide (A4)					ol (F 4)		allow Dark Surface (TE12)
_ Hydroger				Loamy	Gloved Matri	ai (F1) v (E2)	Other (E	allow Dark Sunace (TFTZ)
- 2 om Mu	Layers(A3)			Doplet	od Motrix (E2)	x (r <i>z</i>)		
	CK (ATU)	(/ / / /)		Depiet				
	Below Dark Sun	ace (ATT)			Dark Surface	(FO)	31	
	rk Surface (A12)				ed Dark Suna		indicators wetlan	d hydrology must be present
	ucky Mineral (S1	((- -)		Redox	Depressions	(F8)	unless	disturbed or problematic.
5 cm Mu	cky Peat or Peat	(\$3)						
Type: Depth (inch narks:	es):						Hydric Soil Preser	nt? Yes No _>
Type: Depth (inch narks:	es):						Hydric Soil Preser	nt? Yes No _X
Type: Depth (inch narks: DROLOC	es):						Hydric Soil Preser	nt? Yes No _>
Type: Depth (inch narks: DROLOC	es): BY blogy Indicators						Hydric Soil Preser	nt? Yes No _>
Type: Depth (inch narks: DROLOC Iand Hydro Primary Ind	es): GY blogy Indicators icators (minimum	of one is n	equired; check	all that appl	у)		Hydric Soil Preser	nt? Yes No _>
Type: Depth (inch narks: DROLOC land Hydro Primary Ind Surface \	es): GY blogy Indicators icators (minimum Water (A1)	of one is r	equired; check	all that appl	y) aves (B9)		Hydric Soil Preser	ht? Yes No dicators (minimum of two requ il Cracks (B6)
Type: Depth (inch narks: DROLOC land Hydro Primary Ind Surface N High Wat	es): GY blogy Indicators icators (minimum Water (A1) ter Table (A2)	of one is r	equired; check Wate Aqua	all that appl Stained Le tic Fauna (B	y) aves (B9) 13)		Hydric Soil Preser	dicators (minimum of two requ il Cracks (B6) Patterns (B10)
Type: Depth (inch- harks: DROLOC land Hydro Primary Ind Surface V High Wat Saturatio	es): blogy Indicators icators (minimum Vater (A1) ter Table (A2) n (A3)	of one is n	equired; check Wate Aqua True	all that appl r-Stained Le tic Fauna (B Aquatic Plar	y) aves (B9) 13) nts (B14)		Hydric Soil Preser	dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2)
Type: Depth (inch- harks: DROLOC Iand Hydro Primary Ind Surface V High War Saturatio Water Ma	es): GY blogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1)	of one is n	equired; check Wate Aqua True Hydro	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide	y) aves (B9) 13) nts (B14) Odor (C1)		Hydric Soil Preser	ht? Yes No A dicators (minimum of two requ il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8)
Type: Depth (inch narks: DROLOC Drimary Ind Surface V High Wat Saturatio Water Ma Sedimen	es): Diogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	of one is r	equired; check Wate Aqua True Hydru Oxidi	all that appl r-Stained Le tic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosp	y) aves (B9) 13) nts (B14) Odor (C1) heres on Livir	ng Roots (C3	Hydric Soil Preser	ht? Yes No _> dicators (minimum of two requ il Cracks (B6) 'atterns (B10) h Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Type: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	es): blogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	of one is r	equired; check Wate Aqua True Hydru Oxidi Preso	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu	y) aves (B9) 13) nts (B14) Odor (C1) heres on Livir uced Iron (C4)	ng Roots (C3	Hydric Soil Preser	t? Yes No dicators (minimum of two requinil Cracks (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Type: Depth (inch- narks: DROLOC tland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	es): blogy Indicators icators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	of one is n	equired; check Wate Aqua True Hydru Oxidi Prese Rece	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu nt Iron Redu	y) aves (B9) 13) 13 (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled	ng Roots (C3 Soils (C6)	Hydric Soil Preser	dicators (minimum of two required dicators (minimum of two required di Cracks (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)
Type: Depth (inch narks: DROLOC Iand Hydro Primary Ind Surface V High War Saturatio Water Ma Sedimen Drift Dep Algal Mar Iron Depo	es): blogy Indicators icators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	of one is n	equired; check Wate Aqua True Hydra Presa Rece Thin	all that appl r-Stained Le dic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosp ence of Redu nt Iron Redu Muck Surfac	y) aves (B9) 13) 15 (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
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Type: Depth (inch narks: DROLOC Eland Hydro Primary Ind Surface V High War Saturatio Water Ma Saturatio Drift Dep Algal Mar Iron Depo Inundatic Sparsely d Observa	es): Dlogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions:	of one is r al Imagery ave Surface	equired; chec↓ Wate Aqua True Hydru Oxidi Presu Rece Thin (B7)Gaug 3 (B8)Othe	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ance of Redu nt Iron Redu Muck Surfac je or Well Da r (Explain in	y) aves (B9) 13) ts (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requ il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inch narks: DROLOC Primary Ind Surface \ High Wai Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Mai Iron Depu Inundatic Sparsely d Observa	es): Dlogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present?	al Imagery ave Surface	equired; check Wate Aqua True Hydru Oxidi Prese Rece Thin (B7) Gaug 3 (B8) Othe	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu nt Iron Redu Muck Surfac je or Well Da r (Explain in Depth (in	y) aves (B9) 13) 13) odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	t? Yes No _> dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inch marks: DROLOC tland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depu Inundatic Sparsely d Observa face Water	es): blogy Indicators icators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Y	al Imagery ave Surface es es	equired; check Wate Aqua True Hydru Oxidi Presu Rece Thin (B7)Gaug > (B8)Othe X NoX	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu nuck Surfac je or Well Da r (Explain in Depth (in Depth (in	y) aves (B9) 13) tts (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	tr? Yes No dicators (minimum of two requind il Cracks (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Type: Depth (inch- narks: DROLOC Iland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depu Inundatic Sparsely d Observa face Water r ter Table Pr uration Pres	es): Dogy Indicators icators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Yesent?	al Imagery ave Surface es es es	equired; check 	all that appl r-Stained Le ditic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu Muck Surfac je or Well Da r (Explain in Depth (in Depth (in	y) aves (B9) 13) tts (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches) ches)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	t? Yes No _> dicators (minimum of two requind il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No >
Type: Depth (inch narks: DROLOC Eland Hydro Primary Ind Surface N High War Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Mar Iron Depu Inundatic Sparsely d Observar face Water tare Table Pr uration Pres ludes capilla	es): BY Dogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Yesent? Yesent? Yaary fringe)	al Imagery ave Surface es es es	equired; check Wate Aqua True Hydru Oxidi Presu Rece Thin (B7) Gaug 9 (B8) Othe No X No X No X	all that appl r-Stained Le titc Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ance of Redu Muck Surfac je or Well Da r (Explain in Depth (in Depth (in	y) aves (B9) 13) 1ts (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches) 	ng Roots (C3 Soils (C6)	Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ il Cracks (B6) tatterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _>
Type: Depth (inch narks: DROLOC Primary Ind Surface V High Wai Saturatio Water Ma Saturatio Water Ma Saturatio Drift Dep Algal Ma Iron Depu Inundatic Sparsely d Observa face Water ter Table Pr uration Pres ludes capilit cribe Reco	es): Dlogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Yesent? Yesent? Yary fringe) rded Data (strear	al Imagery ave Surface es es i gauge, m	equired; check Wate Aqua True Hydrv Oxidi Prese Rece Thin (B7) Gauç 3 (B8) Othe (B7) Gauç 3 (B8) Othe No X No X No X	all that appl r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu Muck Surfac je or Well Da r (Explain in Depth (in Depth (in Depth (in	y) aves (B9) 13) 13) odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches) 	ng Roots (C3 Soils (C6)	Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _>
Type: Depth (inch narks: DROLOC Iand Hydro Primary Ind Surface V High War Saturatio Water Ma Saturatio Water Ma Sedimen Drift Dep Algal Mar Iron Depu Inundatic Sparsely d Observa face Water ration Pres ludes capilla cribe Recou	es): GY blogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Yesent? Yesent? Yary fringe) rded Data (strear	al Imagery ave Surface es es es i gauge, m	equired; check Wate Aqua True Hydrı Oxidi Presa Rece Thin (B7) Gauç 9 (B8) Othe No X No X No X No X	all that appl r-Stained Le tric Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ance of Redu Muck Surfac je or Well Da r (Explain in Depth (in Depth (in Depth (in Depth (in	y) aves (B9) 13) 15 (B14) Odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches) ches) ches) ches)	ng Roots (C3 Soils (C6)	Hydric Soil Preser	ht? Yes No dicators (minimum of two requined il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) ht? Yes No
Type: Depth (inch narks: DROLOC Eland Hydro Primary Ind Surface N High Wai Saturatio Water Ma Saturatio Water Ma Saturatio Drift Dep Algal Mai Iron Depu Inundatic Sparsely d Observa face Water ter Table Pr uration Pres ludes capili cribe Recom	es): Dlogy Indicators icators (minimum Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeri Vegetated Conc tions: Present? Yesent? Yesent? Yasent? Yasent? Yesent (Strear	al Imagery ave Surface es es i gauge, m	equired; check Wate Aqua True Hydri Oxidi Prese Rece Thin (B7) Gauç 3 (B8) Othe No X No X No X No X onitoring well,	all that appl r-Stained Le titc Fauna (B Aquatic Plar ogen Sulfide zed Rhizosp ence of Redu nt Iron Redu Muck Surfac je or Well Da r (Explain in Depth (in Depth (in Depth (in Depth (in	y) aves (B9) 13) 13) odor (C1) heres on Livir uced Iron (C4) ction in Tilled e (C7) ata (D9) Remarks) ches) ches) ches) s, previous ins	ng Roots (C3 Soils (C6)	Hydric Soil Preser	nt? Yes No _> dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5) nt? Yes No _>

Project/Site: Lincolnwa	ay Industrial	Rail		City/Cour	nty: Clinto	on County	у	Sampl	ling Date:	11	/10/2015
Applicant/Owner: CI	inton Devel	opment				Sta	ate: 1/	A Sampl	ing Point:		23
Investigator(s): M. Lo	eonard, A. C	herko					Secti	ion, Township, F	Range:	S24, T	81N, R5E
Landform (hillslope, terra	ace, etc.):	Depression	1	Local relie	ef (concave	e, convex,	none)	Concave			
Slope (%): 1-2 La	at:	41.81032	27	Long:	-9	0.325945		Datum:		UTM8	3
Soil Map Unit Name: IN	T - Intermitt	ent water						NWI classificati	ion:	1	lone
Are climatic / hydrologic	conditions or	n the site typi	cal for this time	of year? Y	′es X	No		(If no, explain in	n Remarks)	
Are Vegetation, S	Soil, or '	Hydrology	significant	ily disturbed?	P Are	e "Normal	Circur	nstances" prese	ent? Yes	Х	No
Are Vegetation, S	Soil, or	Hydrology	naturally p	problematic?	(If i	needed, e	xplain	any answers in	Remarks.))	
SUMMARY OF FIN	DINGS - A	ttach site	map show	ing sampl	ling poi	nt locat	ions,	transects, i	mportar	nt feat	tures, etc.
Hydrophytic Vegetation F	Present?	Yes	X No								
Hydric Soil Present?		Yes	X No		s the Sam	pled Area	a				
Wetland Hydrology Prese	ent?	Yes	X No	w	vithin a W	etland?	-	Yes	<u> </u>	°	
Remarks:				I							
Wetland 11 is a PEMA/C	wetland.										
											I

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30'</u>) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2				Total Number of Dominant		-
4				Species Across All Strata:	2	(B)
Sapling/Shrub Stratum Plot size: 1	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Typha angustifolia	50	Х	OBL	UPL species	x 5 =	
2. Equisetum laevigatum	50	X	FACW	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	=	
4 5			<u> </u>	Hydrophytic Vegetation Indicat	ors:	
,				1 - Rapid Test for Hydrophy	tic Vegetation	
7				X 2 - Dominance Test is >50%)	
·				3 - Prevalence Index is <3.0	1	
o				4 - Morphological Adaptation	ns ¹ (Provide suppor	rting
9				data in Remarks or on a sep	parate sheet)	
0				Problematic Hydrophytic Ve	getation' (Explain)	
Woody Vine Stratum (Plot size: 30')	= Total Cover		¹ Indicators of hydric soil and wetla present, unless disturbed or probl	and hydrology mus ematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes	XNo	

PP - 13 South

Г

23

Depth Matrix	Redox Features										
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Texture	Remarks								
vpe: C=Concentration, D=Depletion, I	RM=Reduced Matrix, MS=Masked Sand Grains	s. ² Location: PL	=Pore Lining, M=Matrix								
Hydric Soil Indicators:			for Problematic Hydric Soils ³								
Histogel (A1)	Sandy Clayed Matrix (S		Drairia Daday (A16)								
Histosol (A1)	Sandy Gleyed Matrix (S	4)Coast									
Black Histic (A3)	Stripped Matrix (S6)	Iron-M	anganese Masses (F12)								
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) Very S	Shallow Dark Surface (TF12)								
Stratified Layers (A5)	Loamy Gleyed Matrix (F	2) X Other	(Explain in Remarks)								
2 cm Muck (A10)	Depleted Matrix (F3)										
Depleted Below Dark Surface (A1	1) Redox Dark Surface (F6	3)									
Thick Dark Surface (A12)	Depleted Dark Surface	(F7) ³ Indicato	rs of hydrophytic vegetation and								
Sandy Mucky Mineral (S1)	Redox Depressions (F8) wetl	and hydrology must be present,								
5 cm Mucky Peat or Peat (S3)		unie	שלוואניים אין איטאופווומנוט.								
strictive Laver (if observed):											
Type: Water											
Depth (inches):	ace	Hydric Soil Pres	sent? Yes X No								
marks: No pit dug due to inundati	on. Soils are assumed hydric due to a presenc	e of hydrophytic vegetatic	n and hydrology indicators.								
(DROLOGY											
etland Hydrology Indicators:											
Primary Indicators (minimum of one i	is required; check all that apply)	Secondary	Indicators (minimum of two requir								
X Surface Water (A1)	Water-Stained Leaves (B9)	0									
High Water Table (A2)		Surface	Soil Cracks (B6)								
	Aquatic Fauna (B13)	Drainage	Soil Cracks (B6) Patterns (B10)								
Saturation (A3)	Aquatic Fauna (B13) True Aquatic Plants (B14)	Drainage Dry-Seas	Soil Cracks (B6) Patterns (B10) son Water Table (C2)								
Saturation (A3) Water Marks (B1)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R	Drainage Dry-Sea: Crayfish :oots (C3)Saturatic	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4)	Drainage Dry-Sea Crayfish !oots (C3)Saturatic Stunted	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	Drainage Dry-Sea: Crayfish coots (C3)Saturatio Stunted Is (C6) X Geomor	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) obic Position (D2)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7)	Loots (C3) Surrace Dry-Sea Crayfish Coots (C3) Saturatio Stunted Stunted Stunted Stunted Stunted	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)	Crayfish Coots (C3) South C6) Cayfish Coots (C3) Stunted The formation Statura	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Crayfish Coots (C3) Stunted ils (C6) X Geomory FAC-Net	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Crayfish coots (C3) South (C6) Crayfish coots (C3) Stunted X Geomory FAC-Net	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf Eld Observations: rface Water Present? Yes X	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Drainage Dry-Sea: Crayfish coots (C3)Saturatio Stunted ils (C6)K Geomory FAC-Net	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf eld Observations: rface Water Present? Yes X	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks) No X Depth (inches) <u>3"</u>	Surrace Drainage Dry-Sea: Crayfish Roots (C3)Saturatio Stunted ils (C6)X Geomor FAC-Nee	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf Peld Observations: rface Water Present? Yes X ater Table Present? Yes turation Present? Yes	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks) No X Depth (inches) <u>3"</u> No X Depth (inches)	Drainage Dry-Sea. Crayfish toots (C3)Saturatic Stunted ils (C6)X Geomor FAC-Net	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5) sent? Yes X No								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf eld Observations: rface Water Present? Yes turation Present? Yes turation Present? Yes cludes capillary fringe)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Drainage Dry-Sea Crayfish coots (C3)Saturatic Stunted ils (C6) X Geomory FAC-Net	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5) sent? Yes X No								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf eld Observations: rface Water Present? Yes X ater Table Present? Yes turation Present? Yes cludes capillary fringe) scribe Recorded Data (stream gauge)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks) No X Depth (inches) <u>3"</u> No X Depth (inches) No X Depth (inches)	Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5) sent? Yes X No								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf Sparsely Vegetated Concave Surf Stater Table Present? Yes turation Present? Yes cludes capillary fringe) scribe Recorded Data (stream gauge, 	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) ery (B7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Wetland Hydrology Pres	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) obic Position (D2) utral Test (D5) sent? Yes X No								
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf dobservations: rface Water Present? Yes X ater Table Present? Yes cludes capillary fringe) scribe Recorded Data (stream gauge, marks:	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) face (B8) Other (Explain in Remarks)	Wetland Hydrology Pres Xions), if available:	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5) sent? Yes X No								
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Project/Site: Lincolr	nway Industr	ial Rail		City/Co	ounty: C	linto	n County		Sampling Date:		11/10/2015
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Applicant/Owner:	Clinton Dev	velopment					State:	IA	Sampling Point:		24
Investigator(s): M	. Leonard, A	. Cherko					Se	ection	, Township, Range:	S24,	, T81N, R5E
Landform (hillslope, te	errace, etc.):	Field		Local re	lief (cor	ncave,	convex, nor	ne):	None		
Slope (%): 0-1	Lat:	41.810246		Long:		-90	.326357		Datum:	UTN	183
Soil Map Unit Name:	INT - Interm	ittent water						N\	VI classification:		None
Are climatic / hydrolog	gic conditions	on the site typical	for this	time of year?	Yes	Х	No	(If	no, explain in Remarks	5)	
Are Vegetation	, Soil,	or Hydrology	signifi	cantly disturbe	d?	Are	"Normal Cire	cums	tances" present? Yes	Х	No
Are Vegetation	, Soil ,	or Hydrology	natura	ally problemation	?	(If n	eeded, expla	ain an	y answers in Remarks.)	
SUMMARY OF F		Attach site m	ap sh	owing sam	pling	poin	t location	is, tr	ansects, importa	nt fe	atures, etc.
Hydrophytic Vegetatio	n Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	Is the	Samp	led Area				
Wetland Hydrology Pr	esent?	Yes	No	Х	within	a We	tland?		Yes N	o	X
Remarks:					1						
Outpoint for SP 23.											
VEGETATION - U	Jse scient	ific names of p	olants								

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Species That		
1. Juniperus virginiana	10	<u> </u>	FACU	Are OBL, FACW, or FAC:	0	(A)
2						
3				Total Number of Dominant		
4				Species Across All Strata:	2	(B)
5						
	10	= Total Cover		Percent of Dominant Species		
Sapling/Shrub Stratum Plot size: 1	5')			That Are OBL, FACW, or FAC:	0%	(A/B)
1						
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	_
5.				FACW species	x 2 =	—
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Bromus inermis	100	Х	FACU	UPL species	x 5 =	
2.				Column Totals:	(A)	— (B)
3				Prevalence Index = B/A	=	_(=)
4						-
				Hydrophytic Vegetation Indicate	ors:	
<u>5.</u>				1 - Rapid Test for Hydrophyti	c Vegetation	
6				2 - Dominance Test is >50%		
7				3 - Prevalence Index is $\leq 3.0^1$		
8				4 - Morphological Adaptation	s ¹ (Provide support	ing
9				data in Remarks or on a sepa	arate sheet)	-
10.				Problematic Hydrophytic Veg	etation ¹ (Explain)	
	100	= Total Cover				
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetlan	nd hydrology must	be
1.				present, unless disturbed or proble	ematic.	
2.				Hydrophytic		
		= Total Cove	r	Vegetation Yes	No X	
				Present?		
Remarks: (Include photo numbers here or or	n a separate	sheet.)				

Depth	main							
inches)	Color (moist)	%	Color (mc	vist) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 3/2	100					Loam	
e: C=Cond	centration, D=Der	pletion, RM=	Reduced Mat	trix, MS=Masl	ked Sand Gra	iins.	² Location: PL=P	ore Lining, M=Matrix
lydric Soil	Indicators:						Indicators for	Problematic Hydric Soils ³ :
- Histosol ((A1)			Sandv (Gleved Matrix	(S4)	Coast Pr	airie Redox (A16)
Histic Eni	ipedon (A2)			Sandy F	Redox (S5)		Dark Su	face (S7)
- Black His	(A3)			Stripper	d Matrix (S6)		Iron-Mar	nace (E1)
					Muslui Missus			
- Hydrogen	Sulfide (A4)				Nucky Minera	(F1)		allow Dark Surface (1F12)
				Doplete	d Metrix (E2)	(FZ)		xpiain in Remarks)
	JK (ATU)	(////)		Depiete	Culviauix (F3)			
	Below Dark Suna	ace (ATT)			Jark Surface ((F0)	31	- Charles when the second set of the second
	rk Surface (A12)				o Dark Surfac	Ce (F7)	Indicators	of nydropnytic vegetation and d hydrology must be present
Sandy Mu	JCKY Mineral (S1)			Redox L	Depressions (I	F8)	unless	disturbed or problematic.
_5 cm Muc	cky Peat or Peat	(S3)						
Depth (inche	es):					н	lydric Soil Preser	nt? Yes No _>
Type: Depth (inche	es):					н	lydric Soil Preser	nt? Yes <u>No</u> >
Depth (inche	es):					н	lydric Soil Preser	nt? Yes No _>
Depth (inche narks: DROLOG	es): SY logy Indicators:					<u>н</u>	lydric Soil Preser	nt? Yes No _>
Depth (inche arks: DROLOG land Hydro Primary Indi	es): SY logy Indicators: cators (minimum	of one is re	quired; check	all that apply	·)	н	Secondary Inc	t? Yes No _>
Depth (inche narks: DROLOG land Hydro Primary Indi Surface V	es):	of one is re	quired; check	all that apply	') aves (B9)	<u>н</u>	ydric Soil Preser	tt? Yes No _> dicators (minimum of two requ il Cracks (B6)
Depth (inche Depth (inche Darks: DROLOG Primary Indi Surface V High Wat	SY logy Indicators: cators (minimum Vater (A1) er Table (A2)	of one is re	 quired; check Wate Aquat	all that apply r-Stained Lea ic Fauna (B1	r) aves (B9) 3)	H	Secondary Ind Surface So Drainage P	t? Yes No _> dicators (minimum of two requ il Cracks (B6) atterns (B10)
Depth (inche Depth (inche narks: DROLOG Iand Hydro Primary Indi Surface V High Wat Saturation	SY Sy Sology Indicators: cators (minimum Vater (A1) er Table (A2) n (A3)	of one is re	quired; check Wate Aquat True J	all that apply r-Stained Lea ic Fauna (B1 Aquatic Plant	') aves (B9) 3) ss (B14)	H	Secondary Ind Surface So Drainage P	t? Yes No _> dicators (minimum of two requ il Cracks (B6) atterns (B10) n Water Table (C2)
Depth (inche Depth (inche Darks: DROLOG Iand Hydro Primary Indi Surface V High Wat Saturation Water Ma	SY Dogy Indicators: cators (minimum Vater (A1) er Table (A2) n (A3) arks (B1)	of one is re	quired; check Wate Aquat True / Hydro	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plant ugen Sulfide (r) aves (B9) 3) s (B14) Ddor (C1)	H	Secondary Inc Surface So Drainage P Dry-Seasor Crayfish Bu	t? Yes No ///////////////////////////////////
Depth (inche parks: DROLOG land Hydro Primary Indi Surface V High Wat Saturation Water Ma Sediment	SY Slogy Indicators: cators (minimum Vater (A1) :er Table (A2) n (A3) arks (B1) : Deposits (B2)	of one is re	quired; check Wate Wate True Hydro Oxidiz	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plant igen Sulfide C zed Rhizosph	r) aves (B9) 3) is (B14) Odor (C1) ieres on Living	g Roots (C3)	Secondary Ind Surface So Drainage P Dry-Seasor Crayfish Bu Saturation	t? Yes No //
DROLOG DROLOG Darks: DROLOG Darks: DROLOG Drimary Indi Surface V High Wat Saturation Water Ma Sediment Drift Depo	SY logy Indicators: cators (minimum Vater (A1) :er Table (A2) n (A3) arks (B1) : Deposits (B2) psits (B3)	of one is re	quired; check Wate Aquat True Oxidiz	all that apply r-Stained Lea tic Fauna (B1 Aquatic Plant igen Sulfide (zed Rhizosph ince of Reduc	r) aves (B9) 3) s (B14) Ddor (C1) aeres on Living ced Iron (C4)	g Roots (C3)	Secondary Ind Surface So Drainage P Dry-Seasor Crayfish Bu Saturation	t? Yes No _> dicators (minimum of two requ il Cracks (B6) atterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
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Project/Site: Lincolnway	Industrial Rail		City/County:	Clinton County	Sampling Date:	12/15/2015
Applicant/Owner: Clin	ton Development			State:	IA Sampling Point:	25
Investigator(s): M. Leo	nard, A. Cherko			Sec	ction, Township, Range:	S24, T81N, R5E
Landform (hillslope, terrace	e, etc.): Depre	ssion	Local relief (concave, convex, none	e): Concave	
Slope (%): 1-2 Lat:	41.8	06841	Long:	-90.335696	Datum:	UTM83
Soil Map Unit Name: 284	B - Flagler sandy	loam, 1 to	5% slopes		NWI classification:	None
Are climatic / hydrologic co	onditions on the site	typical fo	or this time of year? Yes	X No	(If no, explain in Remarks	i)
Are Vegetation, Soi	il, or Hydrolo	រyទ	significantly disturbed?	Are "Normal Circo	umstances" present? Yes	X No
Are Vegetation, Soi	il, or Hydrolo	gyr	naturally problematic?	(If needed, explai	n any answers in Remarks.)
SUMMARY OF FIND	INGS - Attach	site ma	p showing samplin	g point locations	s, transects, importar	nt features, etc.
Hydrophytic Vegetation Pre	esent? Yes	Х	No			
Hydric Soil Present?	Yes	Х	No Is th	he Sampled Area		
Wetland Hydrology Presen	t? Yes	Χ	No with	nin a Wetland?	Yes X N	o
Remarks:						

Wetland 12 is a PEMA wetland in an agricultural field. The wetland had corn stubble and standing water throughout the wetland.

VEGETATION - Use scientific names of plants.

Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
			Are OBL, FACW, or FAC:	2	(A)
			Total Number of Dominant Species Across All Strata:	2	(B)
5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
	·		Prevalence Index worksheet:		
			Total % Cover of:	Multiply by:	
	·		OBL species	x 1 =	_
	·		FACW species	x 2 =	_
	= Total Cover		FAC species	x 3 =	_
			FACU species	x 4 =	
40	Х	FAC	UPL species	x 5 =	
20	X	FACW	Column Totals:	(A)	(B)
			Prevalence Index = B/A	=	_
	. <u> </u>		Hydrophytic Vegetation Indicat	ors:	
	·		1 - Rapid Test for Hydrophyt	ic Vegetation	
			X 2 - Dominance Test is >50%	-	
			3 - Prevalence Index is <3.0	1	
	·		4 - Morphological Adaptation data in Remarks or on a sep	ns ¹ (Provide suppor arate sheet)	ting
			Problematic Hydrophytic Veg	getation ¹ (Explain)	
60	= Total Cover				
_)			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology must ematic.	be
	= Total Cove	r	Hydrophytic Vegetation Yes Present?	X No	
	Absolute % Cover	Absolute % Cover Dominant Species?	Absolute % Cover Dominant Species? Indicator Status	Absolute % Cover Dominant Species? Indicator Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	Absolute Dominant Indicator % Cover Species? Status Mumber of Dominant Species That Are OBL, FACW, or FAC: 2

PP 14 - Northwest

Profile Descrip	otion: (Describe to Matrix	the depth	needed to docu	iment the i Redox Fea	ndicator or tures	confirm	the absence of inc	licators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 2/1	100					Clay Loam	
							• <u> </u>	
							·	
							• <u> </u>	
							2	
'Type: C=Con	centration, D=Deple	tion, RM=I	Reduced Matrix, I	NS=Masked	d Sand Grair	ns.	² Location: PL=I	Pore Lining, M=Matrix
Hydric Soil	Indicators:						Indicators fo	or Problematic Hydric Soils [°] :
Histosol	(A1)			Sandy Gle	yed Matrix (S4)	Coast F	Prairie Redox (A16)
Histic Ep	ipedon (A2)			Sandy Red	dox (S5)		Dark Su	ırface (S7)
Black His	stic (A3)			Stripped N	latrix (S6)		Iron-Ma	nganese Masses (F12)
Hydroger	n Sulfide (A4)			Loamy Mu	cky Mineral	(F1)	Very Sh	allow Dark Surface (TF12)
Stratified	Layers (A5)			Loamy Gle	eyed Matrix ((F2)	X Other (I	Explain in Remarks)
2 cm Mu	ck (A10)		_	Depleted N	Matrix (F3)		_	
Depleted	Below Dark Surfac	e (A11)		Redox Dar	k Surface (F	=6)		
Thick Da	rk Surface (A12)	. ,		- Depleted E	Dark Surface	e (F7)	³ Indicators	of hydrophytic vegetation and
 Sandv M	ucky Mineral (S1)			- Redox Der	pressions (F	8)	wetlar	nd hydrology must be present,
<u> </u>	cky Peat or Peat (S	3)		-		- /	unless	s disturbed or problematic.
		5)						
Remarks: The procedure area was a wet present. The ar problematic soi	described in the Mid land. The soils at th rea is located in a la ils is present (Part 4	dwest Reg is site mee ndscape p b4-Seasor	ion USACE Delin et the criteria for p osition that is like nally Ponded Soil	eation Manu problematic ily to collect s), therefore	ual, Chapter hydric soils, or concentr the soils in	5, page 1 , as indica rate water this area	113-117, was used tors of hydrophytic (Part 3a - concave should be consider	to evaluate soils to determine the vegetation and hydrology are surface). The following indicator of red hydric.
HYDROLOG	GY			<i></i>				
Wetland Hydro	ology Indicators:							
Primary Ind	icators (minimum of	one is rec	uired; check all t	hat apply)			Secondary In	dicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Leave	s (B9)		Surface So	oil Cracks (B6)
High Wa	ter Table (A2)		Aquatic Fa	auna (B13)			Drainage F	Patterns (B10)
Saturatio	n (A3)		True Aqua	atic Plants (I	B14)		Dry-Seaso	n Water Table (C2)
Water Ma	arks (B1)		Hydrogen	Sulfide Odd	or (C1)		Crayfish B	urrows (C8)
Sedimen	t Deposits (B2)		Oxidized I	Rhizosphere	es on Living	Roots (C3	3) Saturation	Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Presence	of Reduced	l Iron (C4)		Stunted or	Stressed Plants (D1)
Algal Ma	t or Crust (B4)		Recent Iro	on Reduction	n in Tilled S	oils (C6)	X Geomorph	ic Position (D2)
Iron Dep	osits (B5)		Thin Mucł	surface (C	(7)	()	X FAC-Neut	al Test (D5)
Inundatio	on Visible on Aerial I	magery (B	(7) Gauge or	Well Data (, D9)		—	
Sparsely	Vegetated Concave	e Surface (B8) Other (Ex	plain in Rem	narks)			
Field Observa	tions:					Т		
Surface Water	Present? Yes	х	No D	enth (inches	s) 1"			
Water Table Pr	resent? Yes		No X D	epth (inches	s)			
Saturation Pres	sent? Yes		No X D	epth (inches	s)	Wetlan	d Hvdroloav Prese	ent? Yes X No
(includes capill	ary fringe)						,	
Describe Reco	rded Data (stream g	auge, mor	nitoring well, aeria	al photos, pr	evious inspe	ections), i	f available:	
Remarks:	Surface Water is pre	sent throu	ghout the wetland	t				

Project/Site: Lincoln	way Industri	al Rail		City/Co	ounty:	Clintor	n County		Sampling Date:		12/15/2015	
Applicant/Owner:	Clinton Deve	elopment					State:	IA	Sampling Point:		26	
Investigator(s): M.	Leonard, A.	Cherko					Se	ection,	Township, Range:	S24	, T81N, R5E	
Landform (hillslope, te	rrace, etc.):	Farm field		Local re	elief (c	oncave,	convex, nor	ne):	None			
Slope (%): 0-1	Lat:	41.810246		Long:		-90.	326357	-	Datum:	UTN	183	
Soil Map Unit Name:	284B - Flagle	er sandy loam, 1	to 5% s	lopes				NV	VI classification:		None	
Are climatic / hydrolog	ic conditions	on the site typical	for this	time of year?	Yes	Х	No	(lf	no, explain in Remarks	5)		
Are Vegetation	, Soil, o	r Hydrology	signific	cantly disturbe	d?	Are '	'Normal Circ	cumst	ances" present? Yes	Х	No	
Are Vegetation	, Soil , o	r Hydrology	natura	lly problemation	c?	(lf ne	eded, expla	ain an	y answers in Remarks.)		
SUMMARY OF FI	NDI <mark>NGS</mark> -	Attach site m	- ap sho	owing sam	pling	g poin	t location	s, tr	ansects, importa	nt fe	atures, etc	:.
Hydrophytic Vegetation	n Present?	Yes	No	Х								
Hydric Soil Present?		Yes	No	Х	Is th	e Samp	led Area					
Wetland Hydrology Pre	esent?	Yes	No	Х	with	in a We	tland?		Yes N	lo	Х	
Remarks:												
Outpoint for SP 25												
VEGETATION - U	se scienti	fic names of r	lants									

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Iree Stratum (Plot size: 30°) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
2 3 4				Total Number of Dominant Species Across All Strata:	1	(B)
5 Sapling/Shrub Stratum Plot size: 15	')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	0%	(A/B)
2				Prevalence Index worksheet:		
3.		·		Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.				FACW species	x 2 =	
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Zea mays	50	Х	UPL	UPL species	x 5 =	
2.				Column Totals:	(A)	(B)
3				Prevalence Index = B/A	=	
4				Hydrophytic Vegetation Indicat	ors:	
5				1 - Rapid Test for Hydrophyti	ic Vegetation	
6				2 - Dominance Test is >50%	le vogetation	
7				3 - Prevalence Index is <3.01	I	
8 9				4 - Morphological Adaptation data in Remarks or on a sep	Is ¹ (Provide suppo arate sheet)	rting
10		. <u> </u>		Problematic Hydrophytic Veg	getation ¹ (Explain)	
	50	= Total Cover				
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology mus ematic.	t be
2.				Hydrophytic		
		= Total Cove	r	Vegetation Yes	<u>No X</u>	-

Dopui	Maurix			Redox Fe	atures			
(inches)	Color (moist)	%	Color (mo	vist) %	Type ¹	Loc ²	Texture	Remarks
0-20	10 YR 2/1	100					Clay Loam	
pe: C=Con	centration, D=Deple	etion, RM=	Reduced Mat	trix, MS=Maske	d Sand Grai	ns.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil	Indicators:						Indicators for	or Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy Gl	eyed Matrix ((S4)	Coast F	Prairie Redox (A16)
Histic Ep	ipedon (A2)			Sandy Re	edox (S5)		Dark S	urface (S7)
Black His	stic (A3)			Stripped I	Matrix (S6)		Iron-Ma	anganese Masses (F12)
 Hvdroger	n Sulfide (A4)			Loamy M	ucky Mineral	(F1)	Verv Sl	nallow Dark Surface (TF12)
Stratified	Lavers (A5)			Loamy G	leved Matrix	(F2)	Other (Explain in Remarks)
2 cm Mu	ck (A10)			Depleted	Matrix (F3)	()		
 Depleted	Below Dark Surfac	:e (A11)		Redox Da	ark Surface (F6)		
Thick Da	rk Surface (A12)			 Depleted	Dark Surface	e (F7)	³ Indicator	s of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)			Bedox Dr	pressions (F	-8)	wetla	nd hydrology must be present,
_ E om Mu	oky Poot or Poot (S	· 2)				0)	unles	s disturbed or problematic.
		0)						
Depth (inch narks:	es):						Hydric Soil Prese	ent? Yes <u>No</u> No
Depth (inch narks:	es):		<u> </u>				Hydric Soil Prese	ent? Yes No _>
Depth (inch narks:	es):						Hydric Soil Prese	ent? Yes <u>No</u>
Depth (inch narks: DROLOC	es): GY blogy Indicators:						Hydric Soil Prese	ent? Yes <u>No</u>
Depth (inch narks: DROLOC Iand Hydro	es): GY blogy Indicators: icators (minimum c	f one is re	quired; check	all that apply)			Hydric Soil Prese	ent? Yes <u>No</u>
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface \	es): GY blogy Indicators: icators (minimum c Water (A1)	f one is re	quired; check	all that apply) r-Stained Leave	es (B9)		Hydric Soil Prese	ent? Yes <u>No</u> No mdicators (minimum of two requinding oil Cracks (B6)
Depth (inch narks: DROLOC Iand Hydro Primary Ind Surface V High Wat	es): GY blogy Indicators: icators (minimum c Water (A1) ter Table (A2)	f one is re	quired; check Water Aquat	all that apply) r-Stained Leave ic Fauna (B13)	əs (B9)		Hydric Soil Prese	ent? Yes No ndicators (minimum of two requination of two requinations) oil Cracks (B6) Patterns (B10)
Depth (inch narks: DROLOC land Hydro Primary Ind Surface N High Wai Saturatio	es): GY blogy Indicators: icators (minimum c Water (A1) ter Table (A2) in (A3)	f one is re	quired; check Water Aquat True /	all that apply) r-Stained Leave ic Fauna (B13) Aquatic Plants	es (B9)) (B14)		Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Seaso	ent? Yes No ndicators (minimum of two requination oil Cracks (B6) Patterns (B10) on Water Table (C2)
Depth (inch narks: DROLOC land Hydro Primary Ind Surface \ High Wat Saturatio Water Ma	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1)	f one is re	quired; check Water Aquat True / Hydro	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants igen Sulfide Oc	es (B9) (B14) dor (C1)		Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Seaso Crayfish E	ent? Yes No ndicators (minimum of two requ oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8)
Depth (inch narks: DROLOC Iand Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)	f one is re	quired; check Water Aquat True / Hydro Oxidiz	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants igen Sulfide Oc zed Rhizospher	es (B9)) (B14) dor (C1) res on Living	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E	ent? Yes No ndicators (minimum of two requination of two requinations) oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) o Visible on Aerial Imagery (C9)
Depth (inch narks: DROLOC Cland Hydro Primary Ind Surface N High Wa' Saturatio Water Ma Sedimen Drift Dep	es): Dology Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	f one is re	quired; check Water Aquat True / Hydro Oxidiz Prese	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants igen Sulfide Oc zed Rhizospher ince of Reduce	es (B9) (B14) dor (C1) res on Living d Iron (C4)	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) on Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) r Stressed Plants (D1)
Depth (inch narks: DROLOC cland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	f one is re	quired; check Water Aquat True / Hydro Prese Recer	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) on Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) nic Position (D2)
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	f one is re	quired; check Water Aquat True / Oxidiz Prese Recer Thin N	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Juck Surface (es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7)	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) pon Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Depth (inch narks: DROLOC Iland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mar Iron Depu Inundatio	es): GY blogy Indicators: icators (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	f one is re	quired; check Water Yaquat True / Hydro Hydro Noridiz Prese Recer Thin M 37)Gaug	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Juck Surface (e or Well Data	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9)	Roots (C3 Goils (C6)	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requinations) oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) o Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatic Sparsely	es): GY blogy Indicators: icators (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	f one is re Imagery (E e Surface	quired; check Water Aquat True / Oxidiz Prese Recer Thin M 37) Gaug (B8) Other	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Juck Surface (e or Well Data (Explain in Re	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks)	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requinations) oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) o Visible on Aerial Imagery (C9) or Stressed Plants (D1) nic Position (D2) ral Test (D5)
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depu Inundatic Sparsely d Observa	es): GY blogy Indicators: icators (minimum c 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 tions:	f one is re Imagery (F e Surface	quired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin M 37)Gaug (B8)Other	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vuck Surface (e or Well Data (Explain in Re	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks)	Roots (C3 Soils (C6)	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted ou Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Type Depth (inch marks:	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav tions: Present? Yes	f one is re Imagery (E e Surface	quired; check Water Aquat True / Oxidiz Prese Recer Thin N 37) Gaug (B8) Other	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants gen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vluck Surface (e or Well Data (Explain in Re Depth (inche	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks)	Roots (C3	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requi oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatic Sparsely d Observa face Water Table Pr	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav tions: Present? Yes resent? Yes	f one is re Imagery (E e Surface	quired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin N 37)Gaug (B8)Other NoX NoX	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vuck Surface (e or Well Data (Explain in Re Depth (inche Depth (inche	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es)	Roots (C3 soils (C6)	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) o Visible on Aerial Imagery (C9) or Stressed Plants (D1) nic Position (D2) ral Test (D5)
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depu Inundatic Sparsely d Observa face Water ter Table Pr uration Pres	es): GY blogy Indicators: icators (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 tions: Present? Yes sent? Yes	f one is re Imagery (E e Surface	quired; check Water Aquat True / Oxidiz Prese Recer Thin N 37) Gaug (B8) Other	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vuck Surface (i e or Well Data (Explain in Re Depth (inche Depth (inche	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es)	Roots (C3 Soils (C6)	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) on Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) on Stressed Plants (D1) nic Position (D2) ral Test (D5) ent? Yes No
Depth (inch narks: DROLOO tland Hydro Primary Ind Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mar Iron Depu Inundatic Sparsely d Observar face Water ter Table Pr uration Press ludes capili	es): Constructions: Constructions (minimum of Constructions (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 Vegetated Concav tions: Present? Yes asent? Yes ary fringe)	f one is re	quired; check Water Aquat True / Hydro Oxidiz Prese Thin N 37)Gaug (B8)Other NoX NoX NoX	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vuck Surface (e or Well Data (Explain in Re Depth (inche Depth (inche	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es)	Roots (C3 Soils (C6) Wetlanc	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requination of two requination of two requinations (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5) ent? Yes No
Type. Depth (inch narks: Depth (inch narks: Depth (inch narks: Drimary Ind Surface N High Wai Saturatio Water Ma Sedimen Drift Dep Algal Mai Iron Depu Inundatic Sparsely Id Observa face Water ter Table Pr uration Press Iudes capilli cribe Record	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav tions: Present? Yes sent? Yes ary fringe) rded Data (stream of	f one is re	quired; check Water Aquat True / Hydro Oxidiz Prese Recer Thin N 37) Gaug (B8) Other No X No X No X	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vluck Surface (e or Well Data (Explain in Re Depth (inche Depth (inche aerial photos, p	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es) es)	Roots (C3 coils (C6) Wetlance ections), if	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No ndicators (minimum of two requi- oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5) ent? Yes No
Depth (inch narks: DROLOC tland Hydro Primary Ind Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depu Inundatic Sparsely d Observa face Water ter Table Pr uration Pres ludes capilla cribe Recon	es): Comparison of the set of th	Imagery (E e Surface	quired; check Watel Aquat True / Yord Oxidiz Prese Thin N 37)Gaug (B8)Other NoX NoX NoX NoX nitoring well, a	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Vuck Surface (e or Well Data (Explain in Re Depth (inche Depth (inche aerial photos, p	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es) es)	Roots (C3 Soils (C6) Wetland ections), if	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o Geomorph FAC-Neut	ent? Yes No> ndicators (minimum of two required oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5) ent? Yes No>
Depth (inch narks: Depth (inch narks: DROLOC tland Hydro Primary Ind Surface N High Wa' Saturatio Water Ma Sedimen Drift Dep Algal Ma' Iron Depo Inundatic Sparsely Id Observa face Water ter Table Pr uration Press Iudes capilla cribe Recol marks:	es): GY blogy Indicators: icators (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 tions: Present? Yes sent? Yes ary fringe) rded Data (stream s	f one is re Imagery (F e Surface	quired; check Water Aquat True / Hydro Oxidiz Prese Thin N 37)Gaug (B8)Other No No No No No No No No No No No No No	all that apply) r-Stained Leave tic Fauna (B13) Aquatic Plants ogen Sulfide Oc zed Rhizospher ince of Reduce nt Iron Reductio Muck Surface (i e or Well Data (Explain in Re Depth (inche Depth (inche aerial photos, p	es (B9) (B14) dor (C1) res on Living d Iron (C4) on in Tilled S C7) (D9) marks) es) es)	Roots (C3 coils (C6) Wetlanc	Hydric Soil Prese Secondary Ir Surface S Drainage Dry-Sease Crayfish E Saturation Stunted or Geomorph FAC-Neut	ent? Yes No hdicators (minimum of two requi- oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) r Stressed Plants (D1) hic Position (D2) ral Test (D5) ent? Yes No

Project/Site: Lincolnw	vay Industr	rial Rail		Cit	y/County:	Clinton	County		Sampling Dat	te:	12/15/2015
Applicant/Owner: C	linton Dev	velopment					State:	IA	Sampling Poir	nt:	27
Investigator(s): M. L	Leonard, A	. Cherko					S	ection	, Township, Range:	S24	4, T81N, R5E
Landform (hillslope, terr	race, etc.):	Depressio	on	Loc	al relief (concave, c	onvex, no	ne):	Concave		
Slope (%): 1-2 I	Lat:	41.807	929	Lon	g:	-90.3	36395		Datum:	UTI	M83
Soil Map Unit Name: 2	84B - Flag	ler sandy loa	m, 1 t	to 5% slopes				N۷	NI classification:		None
Are climatic / hydrologic	conditions	s on the site ty	pical f	for this time of ye	ar? Yes	X	No	(If	no, explain in Rema	ırks)	
Are Vegetation,	Soil,	or Hydrology		significantly dist	urbed?	Are "N	lormal Cir	cumst	tances" present? Ye	s X	<u> </u>
Are Vegetation,	Soil ,	or Hydrology		naturally probler	natic?	(If nee	eded, expl	ain an	y answers in Remar	′ks.)	
SUMMARY OF FIN		- Attach sit	e ma	ap showing s	amplin	g point	locatior	ns, tr	ansects, impor	tant fo	etures, etc.
Hydrophytic Vegetation	Present?	Yes	Х	No							
Hydric Soil Present?		Yes	Х	No	ls t	he Sample	ed Area				
Wetland Hydrology Pres	sent?	Yes	Х	No	with	hin a Wetla	and?		Yes X	No _	
Remarks:											

Wetland 13 is a PEMA wetland in an agricultural field. The wetland had corn stubble and standing water throughout the wetland.

VEGETATION - Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
1 (Plot size:)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2. 3. 4.				Total Number of Dominant Species Across All Strata:	2	(B)
5 Sapling/Shrub Stratum Plot size:1	5')	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	100%	(A/B)
2.		·		Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	_
5.				FACW species	x 2 =	_
		= Total Cover		FAC species	x 3 =	_
Herb Stratum (Plot size: 5')				FACU species	x 4 =	_
1. Panicum virgatum	35	Х	FAC	UPL species	x 5 =	
2. Echinochloa crus-galli	35	X	FACW	Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	=	_
4				Hydrophytic Vegetation Indicate	ors:	
5				1 - Rapid Test for Hydrophyti	ic Vegetation	
6				X 2 - Dominance Test is >50%	5	
7				3 - Prevalence Index is <3.01	i	
8 9.		·		4 - Morphological Adaptation data in Remarks or on a sep	is ¹ (Provide support arate sheet)	ting
10.				Problematic Hydrophytic Veo	petation ¹ (Explain)	
· · · · · · · · · · · · · · · · · · ·	70	= Total Cover			, , , , , , , , , , , , , , , , , , , ,	
Woody Vine Stratum (Plot size: 30')			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology must ematic.	be
2		= Total Cove	r	Hydrophytic Vegetation Yes Present?	X No	
Remarks: (Include photo numbers here or or	n a separate	sheet.)				

PP 15 - Northwest

Color (moist) % Color (moist) % 0-20 10 YR 2/1 100	Type ¹ Loc ² Texture Clay Loam Clay Loam Sand Grains. 2Location: PL=P Indicators for Indicators for d Matrix (S4) Coast Pr (S5) Dark Sur	Remarks
0-20 10 YR 2/1 100	Clay Loam	^r ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1)Sandy Gley Histic Epipedon (A2)Sandy Redu Black Histic (A3)Stripped Ma Hydrogen Sulfide (A4)Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr (S5) Dark Sur	^t ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1) Sandy Gley Histic Epipedon (A2) Sandy Redu Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr (S5) Dark Sur	['] ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators:	iand Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr < (S5) Dark Sur	'ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1) Sandy Gley Histic Epipedon (A2) Sandy Redu Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr < (S5) Dark Sur	^t ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1) Sandy Gley Histic Epipedon (A2) Sandy Redu Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr < (S5) Dark Sur	^v ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1) Sandy Gley Histic Epipedon (A2) Sandy Redu Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr < (S5) Dark Sur	^v ore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Muc	and Grains. ² Location: PL=P Indicators for d Matrix (S4) Coast Pr < (S5) Dark Sur	Pore Lining, M=Matrix r Problematic Hydric Soils³: rairie Redox (A16)
Hydric Soil Indicators:	Indicators for d Matrix (S4)Coast Pr د (S5)Dark Sur	r Problematic Hydric Soils ³ : ⁻ airie Redox (A16)
Histosol (A1) Sandy Gley Histic Epipedon (A2) Sandy Redo Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	d Matrix (S4) Coast Pr < (S5) Dark Sur	rairie Redox (A16)
Histic Epipedon (A2) Sandy Redo Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc	(S5) Dark Sur	
Black Histic (A3) Stripped Ma Hydrogen Sulfide (A4) Loamy Muc		rface (S7)
Hydrogen Sulfide (A4) Loamy Muc	rix (S6)	nace (Cr)
Hydrogen Suilide (A4) Loaniy Muc		allow Dark Surface (TE12)
	y Mineral (F1) Very Sha	allow Dark Surface (TF12)
	$\frac{1}{2} \text{ Under } (E_2) \qquad \underline{\wedge} \text{ Under } (E_2)$	xpiain in Kemarks)
2 cm Muck (A10) Depleted Ma		
Depleted Below Dark Surface (A11) Redox Dark		
Thick Dark Surface (A12)Depleted Da	k Surface (F7) Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Redox Depr	ssions (F8) wetani	disturbed or problematic.
5 cm Mucky Peat or Peat (S3)		
estrictive Layer (if observed):		
Depth (inches):	Hydric Soil Presen	it? Yes <u>X</u> No
roblematic soils is present (Part 4b4-Seasonally Ponded Soils), therefore	ne soils in this area should be considered	ed hydric.
IYDROLOGY		
/etland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Inc	dicators (minimum of two required
X Surface Water (A1) Water-Stained Leaves	B9) Surface So	il Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13)	Drainage P	atterns (B10)
Saturation (A3) True Aquatic Plants (B	4) Dry-Seasor	n Water Table (C2)
	(C1) Crayfish Bu	urrows (C8)
Water Marks (B1) Hydrogen Sulfide Odor		Visible on Asriel Imageny (CO)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) Saturation	VISIBLE OIL AELIAL IIIIAGELY (C9)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I	on Living Roots (C3) Saturation ' on (C4) Stunted or Stunted or State	Stressed Plants (D1)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction	on Living Roots (C3) Saturation on (C4) Stunted or n Tilled Soils (C6) X Geomorphi	Stressed Plants (D1) c Position (D2)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7	on Living Roots (C3) Saturation on (C4) Stunted or n Tilled Soils (C6) X Geomorphic X FAC-Neutra	Stressed Plants (D1) c Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D	on Living Roots (C3) Saturation ' on (C4) Stunted or : n Tilled Soils (C6) X Geomorphi X FAC-Neutra	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remaining Rem	on Living Roots (C3) Saturation ' on (C4) Stunted or : n Tilled Soils (C6) X Geomorphi X FAC-Neutra	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remaining in Remainin	on Living Roots (C3) Saturation ' on (C4) Stunted or : n Tilled Soils (C6) X Geomorphi X FAC-Neutra i) 'ks)	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remain ield Observations: Urface Water Present? Yes X No Depth (inches)	on Living Roots (C3) Saturation ' on (C4) Stunted or : n Tilled Soils (C6) X Geomorphi X FAC-Neutra I) ^r ks)	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remaining the resent) ield Observations: Yes X No urface Water Present? Yes No Depth (inches)	on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra)) ^r ks)	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remaining Remainining Remaining Remaining Remaining Remainining Remaini	on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra) rks)	Stressed Plants (D1) ic Position (D2) al Test (D5)
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remaining Remainining Remaining Remaining Remaining Remainining Remaini	on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra) rks) Wetland Hydrology Preser	nt? Yes X No
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remained Present? eld Observations: Yes No vater Table Present? Yes No Autration Present? Yes No Seturation Present? Yes No Seturation Present? Yes No Seturation Present? Yes No Seturation Present? Yes No X Depth (inches) Depth (inches) seturation Present? Yes No X Depth (inches) Depth (inches) Seturation Present? Yes No X Depth (inches) Depth (inches) Depth (inches) Seturation Present? Yes No X Depth (inches) Depth (inches) Depth (inches) </td <td>on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra)) rks) </td> <td>nt? Yes X No</td>	on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra)) rks) 	nt? Yes X No
Water Marks (B1) Hydrogen Sulfide Odor Sediment Deposits (B2) Oxidized Rhizospheres Drift Deposits (B3) Presence of Reduced I Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C7 Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarkation Remarkation) eld Observations: Ves No X urface Water Present? Yes No X Depth (inches) aturation Present? Yes No X Depth (inches) acturation Present? Yes No X Depth (inche	on Living Roots (C3) Saturation ' on (C4) Stunted or n Tilled Soils (C6) X Geomorphi X FAC-Neutra) rks) 	Stressed Plants (D1) ic Position (D2) al Test (D5)

Project/Site: Lincoln	way Industria	al Rail		City/Co	ounty:	Clintor	n County		Sampling Date:	1	2/15/2015
Applicant/Owner:	Clinton Deve	elopment					State:	IA	Sampling Point:		28
Investigator(s): M.	Leonard, A.	Cherko					Se	ection,	Township, Range:	S24,	T81N, R5E
Landform (hillslope, te	errace, etc.):	Farm field		Local re	lief (co	oncave,	convex, nor	ne):	None		
Slope (%): 0-1	Lat:	41.807929		Long:		-90	.226345	-	Datum:	UTM	83
Soil Map Unit Name:	284B - Flagle	er sandy loam, 1	to 5% s	lopes				NV	VI classification:		None
Are climatic / hydrolog	ic conditions of	on the site typical	for this	time of year?	Yes	Х	No	(If	no, explain in Remarks	6)	
Are Vegetation	, Soil, o	r Hydrology	signific	cantly disturbe	d?	Are	"Normal Cire	cumst	ances" present? Yes	Х	No
Are Vegetation	, Soil , o	r Hydrology	natura	Illy problematio	?	(If ne	eeded, expla	ain an	y answers in Remarks.	.)	
SUMMARY OF F	INDINGS -	Attach site m	ap sh	owing sam	pling	g poin	t location	ns, tr	ansects, importa	nt fea	atures, etc.
Hydrophytic Vegetatio	n Present?	Yes	No	Х							
Hydric Soil Present?		Yes	No	Х	Is the	e Samp	led Area				
Wetland Hydrology Pr	esent?	Yes	No	Х	withi	n a We	tland?		Yes N	lo	X
Remarks:											
Outpoint for SP 27											
VEGETATION - U	Jse scienti	fic names of p	olants								

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That		
1,		·		Are OBL, FACW, or FAC:	0	(A)
3 4				Total Number of Dominant Species Across All Strata:	1	(B)
Sapling/Shrub Stratum Plot size: 15)	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:	0%	(A/B)
2.		·		Prevalence Index worksheet:		
3.		·		Total % Cover of:	Multiply by:	
4.				OBL species	x 1 =	
5.		·		FACW species	x 2 =	—
		= Total Cover		FAC species	x 3 =	
Herb Stratum (Plot size: 5')				FACU species	x 4 =	
1. Zea mays	50	Х	UPL	UPL species	x 5 =	
2.				Column Totals:	(A)	(B)
3.				Prevalence Index = B/A	=	_``
4				Hydrophytic Vegetation Indicate	ors:	
5				1 - Rapid Test for Hydrophyti	ic Vegetation	
6				2 - Dominance Test is >50%		
7				3 - Prevalence Index is <3.01	I	
8 9				4 - Morphological Adaptation data in Remarks or on a sep	s ¹ (Provide suppor arate sheet)	ting
10.				Problematic Hydrophytic Veg	getation ¹ (Explain)	
	50	= Total Cover				
Woody Vine Stratum (Plot size: 30' 1.)			¹ Indicators of hydric soil and wetla present, unless disturbed or proble	nd hydrology must ematic.	be
2.				Hydrophytic		
		= Total Cove	er	Vegetation Yes Present?	<u>No X</u>	-

Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-20 10 YR 2/1 100	inches)			ŀ	Redox Feat	ures	_	-	
0-20 10 YR 2/1 100 Clay Learn 0-20 2 Clay Learn Clay Learn Histos Epidedn (A2) Sandy Redox (S5) Indicators for Problematic Hydric Solis Biock Histic (A3) Sandy Redox (S5) Coast Parine Redox (A16) Stripped Matrix (S4) Learn Wucky Mineral (F1) Very Shaltow Dark Surface (T7) Stripped Matrix (F2) Other (Explain in Remarks) Other (Explain in Remarks) 2 on Muck (A10) Depleted Boark Surface (F6) Indicators of hydrophylic vagetation an weland hydrology must be present unless disturbed or problematic. Simdew Varger (I observed): Type: Depletic Hoark Surface (F7) Indicators (Ininimum of two reg Synface Warer (A1) Aquatic Fauna (B13) Secondary Indicators (Ininimum of two reg Synface Warer (A1) Hydric Soli Present? Yes No Presence of Reduced Iron (C4) Aquatic Fauna (B13)<		Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
c:: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix tydric Soil Indicators: Indicators for Problematic Hydric Soils tydric Soil Indicators: Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Loamy Gleyed Matrix (F2) Operating Sufface (A10) Depleted Matrix (F2) Depleted Balow Dark Surface (A11) Redox Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Macky Mineral (S1) Redox Dark Surface (F7) Sond Mucky Mineral (S1) Redox Dark Surface (F7) Sond Mucky Mineral (S1) Redox Dark Surface (F7) Spelt (inches): Matrix (F2) Depleted Dark Surface (A12) Depleted Dark Surface (F7) Surface Variation (Mineral (S1) Redox Dark Surface (F7) Strittice Layer (if observed): Type: Type: Modentary Surface Water (A1) Aquatic Flama (B13) Surface Water (A1) Aquatic Flama (B13) Surface Water (A1) Hydroice Surface (G12) Optic Micrators: Oxidized Rhizospheres on Lining Roots (C3) Surface Water (A1) Hydroice Soin	0-20	10 YR 2/1	100					Clay Loam	
we: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix histic Spill indicators: Indicators for Problematic Hydric Solls Histic Spilledon (A2) Sandy Gleyed Matrix (S6) Dask Surface (S7) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) Stratified Layer (A5) Learny Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Zern Muck (A10) Depleted Matrix (S6) Indicators of hydrophytic vegetation an wetland hydrology must be present unless disturbed or problematic. Stratified Layer (If observed): Tree Advance (S3) * Ype:									
we: C-Concentration, D-Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL-Pore Lining, M=Matrix type: Sandy Redox (S5) Indicators for Problematic Hydric Solls Coast Prairie Redox (A16) Histoc Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S4) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Learny Gived Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Ton-Manganese Masses (F12) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Ton-Manganese Masses (F12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) ³ Indicators of hydrophytic vegetation an unless disturbed or problematic. 5 cm Mucky Peat or Peat (S3) True Aquatic Plana (B13) Sacondary Indicators (minimum of two req Surface Water (A1) Water-Stained Leaves (B9) Surface Sol Cracks (B6) Primary Indicators (B13) True Aquatic Plana (B13) Drainage Patterns (B10) Surface Water (A1) Hydropens Sufface Odor (C1) Dry-Season Water Table (A2) Year Aquatic Farna (B13) Drainage Patterns (B10) Surface Mater (S1) Surface Water (A1) Hydric Soll Fresent? Yes <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
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Pre: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix Histosol (A1)									
per: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix hydric Soil Indicators: Indicators for Problematic Hydric Soils' Histosel (A1) Sandy Gleyed Matrix (S4) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (T2) 2 cm Muck (A10) Depleted Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) ³ Indicators of hydrophytic vegetation an wetland hydrology must be present unless disturbed or problematic. 6 cm Mucky Mineral (S1) Redox Depressions (F8) ³ Indicators (minimum of two req Surface Vater (A1) Water Stained Leaves (B9) Surface Soil Cracks (B6) High Vater Table (A2) Aquatic Faura (B13) Drainage Patterns (B10) Surface Vater Table (A2) Aquatic Paura (B13) Drainage Patterns (B10) Surface KB1) Hydrogen Suffide Odor (C1) Saturation Visible on Aerial Imagery (CC Primary Indicators (B2) Ouddized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (CC)									
Procession Person Problematic Hydric Soil Histos D(A1)									
Histosol (A1)	e: C=Conc	entration, D=Deple	tion, RM=Re	duced Matrix, M	S=Masked	Sand Grair	IS.	² Location: PL=Pe	ore Lining, M=Matrix
Histosol (A1)	lydric Soil I	Indicators:						Indicators for	Problematic Hydric Soils ³ :
Instant (Fig)	Histosol (/	Δ1)			Sandy Glev	ed Matrix (54)	Coast Pr	airie Redox (A16)
Insta Control (Ca)	Histic Eni	(A2)		—	Sandy Red	ov (S5)	5-1)	Dark Sur	face (S7)
Lack hasts (r,3)		tio (A2)		—)	Stripped M	$O_{\rm A}(O_{\rm O})$		Iron Mon	$\frac{1}{1000} (07)$
Typingen Sumder (A4)		$\frac{1}{2} \left(A \right)$		—`					
and multiced Laylets (A10)	- Hydrogen	Sulfide (A4)		—		Ky Mineral	(F1) F2)	Very Sha	(IIOW Dark Surface (TF12)
2 cm mucks (R10)				—			<i>⊢∠)</i>		(plain in Remarks)
Leptered below Dark Surface (A11)		ik (ATU) Balaw Dark Curfaa	() () ()	—		allix (F3)	·c)		
Inico Dark Sunace (P7)		below Dark Surface	e (ATT)	—			(5 7)	31	f hundreden die unsetstigen aus
Samoulary Mucky Mineral (S1) Redox Depressions (F8) unless disturbed or problematic. 5 cm Mucky Peat or Peat (S3)		k Sufface (A12)		—	Depleted D	ark Surrace	(F7)	indicators (or nydropnytic vegetation and I hydrology must be present
5 cm Mucky Peat or Peat (S3) trictive Layer (if observed): 'ype: 'pent (inches):		icky Mineral (S1)		'	Redox Dep	ressions (F	5)	unless	disturbed or problematic.
trictive Layer (if observed): Type:	_5 cm Muc	ky Peat or Peat (S3	3)						
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Inundation Visible on Aerial Imagery (B7)Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8)Other (Explain in Remarks) d Observations: ace Water Present? YesNo X Depth (inches) er Table Present? YesNo X Depth (inches) Irration Present? YesNo X Depth (inches) udes capillary fringe) cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indic Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	iY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)	one is requi	red; check all tha Water-Stair Aquatic Fau True Aquati True Aquati Hydrogen S Oxidized RI Presence o Recent Iron	at apply) ned Leaves una (B13) ic Plants (E Sulfide Odo nizosphere f Reduced I Reduction	(B9) 314) r (C1) s on Living Iron (C4) in Tilled So	Roots (C bils (C6)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu 3) Saturation V Geomorphic	icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) 2 Position (D2)
Sparsely Vegetated Concave Surface (B8)Other (Explain in Remarks) d Observations: ace Water Present? YesNo X Depth (inches) er Table Present? YesNo X Depth (inches) uration Present? YesNo X Depth (inches) udes capillary fringe) cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOG land Hydro Primary Indic Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo	iY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	one is requi	red; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	at apply) ned Leaves una (B13) ic Plants (E Sulfide Odo nizosphere f Reduced i Reduction Surface (C	(B9) r (C1) s on Living Iron (C4) i in Tilled So 7)	Roots (C bils (C6)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu 3) Saturation N Stunted or S Geomorphic FAC-Neutra	icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
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ace Water Present? Yes No X Depth (inches)	DROLOG Iand Hydro Primary Indic Surface W High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V	iY logy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial I Vegetated Concave	one is requi magery (B7) e Surface (B	red; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W 3) Other (Expl	at apply) ned Leaves una (B13) ic Plants (E Sulfide Odo nizosphere f Reduced n Reduction Surface (C /ell Data (E ain in Rem	(B9) r (C1) s on Living Iron (C4) i in Tilled So 7) D9) arks)	Roots (C bils (C6)	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu 3) Saturation V Stunted or S Geomorphic FAC-Neutra	icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
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	DROLOG Iand Hydro Primary India Surface W High Water Saturation Water Ma Sediment Drift Depc Algal Mat Iron Depo Inundation Sparsely W d Observati ace Water F er Table Pre- udes capilla cribe Record	Iogy Indicators: cators (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial I Vegetated Concave ions: Present? Yes esent? Yes ent? Yes ury fringe) ded Data (stream g	one is requi	red; check all tha Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rl Presence o Recent Iron Thin Muck 3 Gauge or W 3) Other (Expl o X Dep o X Dep o X Dep o X Dep	at apply) ned Leaves una (B13) ic Plants (E Sulfide Odo nizosphere: f Reduced n Reduction Surface (C /ell Data (E ain in Rem oth (inches oth (inches oth (inches photos, pre	(B9) 14) r (C1) s on Living Iron (C4) i in Tilled So 7) 09) arks))) 	Roots (C bils (C6) Wetlan	Secondary Ind Surface Soi Drainage Pa Dry-Season Crayfish Bu 3) Saturation N Stunted or S Geomorphic FAC-Neutra d Hydrology Preser f available:	icators (minimum of two requ I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2) I Test (D5)

Project/Site: Lincoln	way Indust	rial Rail		City/County:	Clinton Co	ounty		Sampling Date:	12	/15/2015
Applicant/Owner:	Clinton Dev	velopment				State:	IA	Sampling Point:		29
Investigator(s): M.	Leonard, A	A. Cherko				Se	ction,	Township, Range:	S24, T	81N, R5E
Landform (hillslope, te	rrace, etc.):	Swale		Local relief (c	concave, cor	nvex, non	ie):	None		
Slope (%): 3-4	Lat:	41.806114		Long:	-90.341	1703		Datum:	UTM8	3
Soil Map Unit Name:	918 - Garwi	in silty clay loam	, sandy substr	atum, 0 to 2º	% slopes		NV	VI classification:	1	lone
Are climatic / hydrolog	ic conditions	s on the site typica	I for this time o	f year? Yes	X N	lo	(If	no, explain in Remarks))	
Are Vegetation	, Soil,	or Hydrology	significantly	disturbed?	Are "No	rmal Circ	umst	ances" present? Yes	Х	No
Are Vegetation	, Soil,	or Hydrology	naturally pro	blematic?	(If neede	ed, expla	in an	y answers in Remarks.)	1	
SUMMARY OF F	INDINGS	- Attach site r	nap showin	g samplin	g point lo	ocation	s, tr	ansects, importar	it feat	ures, etc.
Hydrophytic Vegetatio	n Present?	Yes X	No							
Hydric Soil Present?		Yes	No X	ls th	ne Sampled	Area				
Wetland Hydrology Pre	esent?	Yes	No X	with	nin a Wetlan	nd?		Yes No	<u>× x</u>	,
Remarks:										

Area displayed hydrophytic vegetation, but was determined to be an upland due to lack of hydric soils and hydrology indicators.

VEGETATION - Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test work	sheet:			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Number of Dominant Sp	pecies That			
1.				Are OBL, FACW, or FA	C:	1		(A)
2.						-		
3.				Total Number of Domin	ant			
4				Species Across All Stra	ita:	2	,	(B)
5		· · · · · · · · · · · · · · · · · · ·						(-)
· · · · · · · · · · · · · · · · · · ·		- Total Cover						
Cooling/Chryth Ctroture Distaires 45	1			Percent of Dominant Sp	Decies	50	0/	
Sapling/Shrub Stratum Plot size: 15)			That Are OBL, FACW, 6	or FAC:	50	%	(A/B)
1								
2		· · · · · · · · · · · · · · · · · · ·		Prevalence Index wor	ksheet:			
3		· · · · · · · · · · · · · · · · · · ·		Total % Cove	r of:	Mult	ply by:	_
4.				OBL species	0	x 1 =	0	
5.				FACW species	50	x 2 =	100	_
		= Total Cover		FAC species	0	x 3 =	0	-
Herb Stratum (Plot size: 5')				FACU species	50	x 4 =	200	-
1. Phalaris arundinacea	50	Х	FACW	UPL species	0	x 5 =	0	—
2 Bromus inermis	50	X	FACU	Column Totals:	100	(A)	300	— (B)
2				Prevalence	$\frac{100}{100} = B/A$	_ 3	00	_(=)
				Trevalence			.00	-
4		·		Hydrophytic Veget	ation Indicat	ors:		
5		·		1 - Rapid Test f	or Hydrophyt	ic Vegetati	on	
6				2 - Dominance	Test is >50%			
7				X 3 - Prevalence	Index is $<3.0^{\circ}$	1		
8				4 - Morphologic	al Adaptation	ns ¹ (Provide	sunnorti	na
9.				data in Remark	s or on a sep	arate shee	t)	ng
10				Problematic Hy	drophytic Ver	netation ¹ (F	, xolain)	
	100	- Total Cover			a.ep.iy.e 103	getation (1		
Woody Vine Stratum (Plot size: 30')			¹ locitore of hudric		ما مرا ام م		
1.)			present, unless distu	rbed or proble	ematic.	gy must i	эе
2.				Hydrophytic				
		= Total Cove	r	Vegetation	Yes	X No		
_				Present?				
Remarks: (Include photo numbers here or on a	a separate	sheet.)						

PP 16 - West

29

Depth	Matrix			Redox Fea	itures			
(inches)	Color (moist)	%	Color (mois	st) %	Type ¹	Loc ²	Texture	Remarks
0-22	10 YR 3/2	100					Loam	
e: C=Con	centration, D=Deple	tion, RM=	Reduced Matri	ix, MS=Masked	d Sand Graii	ns.	² Location: PL=P	Pore Lining, M=Matrix
lydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy Gle	yed Matrix (S4)	Coast P	rairie Redox (A16)
Histic Ep	ipedon (A2)			Sandy Red	dox (S5)		 Dark Su	rface (S7)
– Black His	stic (A3)			Stripped M	Atrix (S6)		Iron-Mai	nganese Masses (F12)
- Hydroger	a Sulfide (A4)				icky Mineral	(E1)		allow Dark Surface (TE12)
Stratified					wed Matrix	(F2)	Other (F	international and the second
-2 cm Mu	ck (A10)			Depleted	Matrix (E3)	(1 2)		Apian in Romano)
 	Rolow Dark Surface	o (A11)		Depleted i	rk Surfaco (I	=6)		
- Thick Do	rk Surfood (A12)					0) (E7)	³ Indiantora	of hydrophytic vocatation and
	usky Mineral (S1)					- (F7)	wetlan	d hydrology must be present.
					pressions (F	0)	unless	disturbed or problematic.
	cky Peal of Peal (5.	5)						
Depth (inch-	es):					ŀ	lydric Soil Preser	nt? Yes No _>
Depth (inch narks:	es):					ŀ	lydric Soil Preser	nt? Yes <u>No</u>
Depth (inch narks:	es):					ŀ	lydric Soil Presei	nt? Yes No _>
Depth (inch- narks: DROLOC	es): SY						lydric Soil Preser	nt? Yes No _>
Depth (inch narks: DROLOC land Hydro Primary Ind	es): GY blogy Indicators: icators (minimum of	one is re	quired; check a	all that apply)		ŀ	lydric Soil Presei	nt? Yes <u>No</u>
Depth (inch narks: DROLOC land Hydro Primary Ind X Surface N	es): SY blogy Indicators: icators (minimum of Water (A1)	one is re	quired; check a	all that apply) Stained Leave	s (B9)	ŀ	lydric Soil Preser	nt? Yes No dicators (minimum of two requ il Cracks (B6)
Depth (inch harks: DROLOC land Hydro Primary Ind Surface V High Wai	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2)	one is re	quired; check a Water- 	all that apply) Stained Leave c Fauna (B13)	s (B9)		lydric Soil Preser	ht? Yes No dicators (minimum of two requ il Cracks (B6) ratterns (B10)
Depth (inch narks: DROLOC land Hydro Primary Ind X Surface V High Wat Saturatio	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3)	one is re	quired; check a Water- Aquati	all that apply) Stained Leave c Fauna (B13) quatic Plants (s (B9)		Secondary Ind Secondary Ind Surface So Drainage F Dry-Seaso	dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2)
Depth (inch harks: DROLOC land Hydro Primary Ind Surface V High Water Mo	es): GY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1)	one is re	quired; check a Water- Aquatio True A True A	all that apply) Stained Leave c Fauna (B13) quatic Plants (s (B9) B14)	F	Secondary Ind Surface Sc Drainage F Dry-Seaso	dicators (minimum of two required il Cracks (B6) Patterns (B10) in Water Table (C2)
Depth (inch- narks: DROLOC land Hydro Primary Ind X Surface N Saturatio Water Ma Sadimen	BY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	one is re	quired; check a Water- Aquatio True A Hydrog Ovidiza	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Ode	s (B9) B14) or (C1)	Roots (C3)	Secondary Ind Surface Sc Drainage F Dry-Season Crayfish Bu Saturation	dicators (minimum of two requ il Cracks (B6) Patterns (B10) In Water Table (C2) urrows (C8)
Depth (inch- narks: DROLOC land Hydro Primary Ind Surface V High Wat Saturatio Water Ma Sedimen Drift Dop	es): blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osite (B2)	one is re	quired; check a Water- Aquatio True A True A Hydrog Oxidize	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Ode ed Rhizosphere	s (B9) B14) or (C1) es on Living	Roots (C3)	Secondary In Surface Sc Drainage F Dry-Seaso Crayfish Bu Saturation	dicators (minimum of two requ il Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressod Plants (D1)
Depth (inch- narks: DROLOC land Hydro Primary Ind Saturatio Saturatio Water Ma Sedimen Drift Dep	es): Dology Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Cruct (B4)	one is re	quired; check a Water- Aquatio True A Hydrog Oxidize Preser	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Ode ed Rhizosphere nce of Reduced	s (B9) B14) or (C1) es on Living d Iron (C4)	Roots (C3)	Secondary Ind Secondary Ind Surface Sc Drainage F Dry-Season Crayfish Bu Saturation Stunted or	ht? Yes No dicators (minimum of two requ il Cracks (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) in Pacifica (D2)
Depth (inch- narks: DROLOC land Hydro Primary Ind X Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma	es): BY blogy Indicators: icators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) posite (B5)	one is re	quired; check a Water- Aquatio True A Hydrog Oxidize Preser Receni This M	all that apply) Stained Leave c Fauna (B13) quatic Plants (gen Sulfide Ode ed Rhizosphere nce of Reduced t Iron Reductio	s (B9) B14) or (C1) es on Living d Iron (C4) n in Tilled S	Roots (C3) oils (C6)	Secondary Ind Surface Sc Drainage F Dry-Seaso Crayfish Bu Saturation Stunted or Geomorph	dicators (minimum of two required dicators (minimum of two required di Cracks (B6) Patterns (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Ic Position (D2)
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Project Name: Lincolnway Industrial Rail

Photo: 1

Photo Direction: South

Description: Photo facing south at the area associated with SP 16, Channel 1, and Wetland 1. Channel 1 drains south to Rock Creek.



Project Name:

Lincolnway Industrial Rail

Photo: 2 Photo Direction: East

Description: Photo facing east at Wetland 2 and Channel 2. This area is located within a railroad ditch and weaves in and out of the study area boundary.



Project Name: Lincolnway Industrial Rail Photo: 3

Photo Direction: Northwest

Description: Photo facing northwest at SP 14 and Wetland 3.





Rail Photo: 4

Photo Direction: West

Description: Photo facing west at SP 12 and Wetland 4.



Project Name: Lincolnway Industrial Rail

Photo: 5

Photo Direction: North

Description: Photo facing north at SP 19 and Wetland 5 in a vegetated swale.





Project Name: Lincolnway Industrial Rail

Photo: 7

Photo Direction: North

Description: Photo facing north at SP 8 and Wetland 6 in the railroad ditch. The area had standing water, but no channel features.





Lincolnway Industrial Rail

Photo: 8 Photo Direction:

North Description:

Photo facing north at SP 9 where Wetland 6 ends.



Project Name: Lincolnway Industrial Rail

Photo: 9

Photo Direction: South

Description: Photo facing south at SP 11 and Wetland 7 in an access road ditch.





Lincolnway Industrial Rail

Photo: 10 Photo Direction: North

Description: Photo facing north at Wetland 8 and Channel 3 at the southeast corner of the Study Area.



Project Name: Lincolnway Industrial Rail

Photo: 11

Photo Direction: North

Description: Photo facing north at SP 5 and Wetland 9 in an agricultural field.



Project Name:

Lincolnway Industrial Rail

Photo: 12

Photo Direction: Southeast

Description: Photo facing southeast at the area associated with SP 1 and Wetland 10.





Project Name: Lincolnway Industrial Rail

Photo: 15

Photo Direction: Northwest

Description: Photo facing northeast at SP 27 and Wetland 13. The area in red represents the wetland boundary.



Project Name:

Lincolnway Industrial Rail

Photo: 16 Photo Direction: West

Description:

Photo facing west at the area associated with SP 29. This area was determined to be upland due to lack of hydric soils and hydrology indicators.

