WETLAND DETERMINATION DATA FORM -- Great Plains Region W312 HK001

Project/Site: Keystone Xc		City/County: _	HK		Sampling Date: 10 -8 - 12
Applicant/Owner:				State:SD	Sampling Point:
Investigator(s):		Section, Towr	iship, Rar	ge:	
Landform (hillslope, terrace, etc.):		Local relief (c	oncave, c	onvex, none):	Slope (%):
Subregion (LRR):	Lat:			Long:	Datum:
Soil Map Unit Name:				NWI classific	ation:
Are climatic / hydrologic conditions on the site typical fo	r this time of y	ear? Yes	No	(If no, explain in F	emarks.)
Are Vegetation _ Y, Soil _ Y, or Hydrology _ Y	significantl	y disturbed?	Are "I	Normal Circumstances"	present? Yes No A
Are Vegetation N_, Soil N, or Hydrology N) naturally p	roblematic?	(If nee	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showin	g sampling	point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X Wetland Hydrology Present? Yes X	No No No	Is the s within	Sampled a Wetlan	Area d? Yes X	No
- cattle grazing reduce	a .d vegeta	tionst	distu	bed soil + b	ydrology
VEGETATION – Use scientific names of p	olants.				
Tree Stratum (Plot size:) 1	Absolute % Cove	e Dominant Ir r Species?	idicator Status	Dominance Test work Number of Dominant S That Are OBL, FACW, (excluding FAC-):	rsheet: pecies or FAC
3				Total Number of Domir Species Across All Stra	ant I (B)
Sapling/Shrub Stratum (Plot size:))	= Total Cover		Percent of Dominant S That Are OBL, FACW,	pecies or FAC: <u>\06%</u> (A/B)
2.				Prevalence Index wo	rksheet:
3				Total % Cover of:	Multiply by:
4				OBL species	<u>a</u> x1= <u>10</u>
5				FACW species	X2 =
Horb Stratum (Plot aize:		= Total Cove	r	FAC species	x3 = x4 =
1 Flancha site obberg	90	x	ORL	UPL species	x 5 =
2.				Column Totals:	(A) (B)
3				Danalara a Inda	
4				Prevalence inde	on Indicators:
5				Y 1 - Ranid Test for	Hydrophytic Vegetation
6				✓ 2 - Dominance Te	st is >50%
7	·			3 - Prevalence Inc	lex is ≤3.0 ¹
8				4 - Morphological	Adaptations ¹ (Provide supporting
10				data in Remari	s or on a separate sneet)
Woody Vine Stratum (Plot size:)	90	= Total Cove	r	¹ Indicators of hydric so be present, unless dis	il and wetland hydrology must turbed or problematic.
2.				Hydrophytic	
% Bare Ground in Herb Stratum		= Total Cove	r	Vegetation Present? Y	es <u> </u>
Remarks:					

SOIL

Sampling Point: wetland

linghan	Matrix		Redox	Features	12	Tauton	Den de
(inches)	Color (moist)		<u>Color (moist)</u>	<u>%</u>	Loc	lexture	Remarks
0-15	- soil to	s_dey_t	sample.	due to	dron	ght c	anditions
		·					·
		• •					
¹ Type: C=Co	ncentration D=Den	letion RM=Red	uced Matrix CS=	Covered or Coated	Sand Grai	ins ² 1 (cation: PL=Pore Lining M=Matrix
Hydric Soil In	ndicators: (Applic	able to all LRR	s, unless otherw	ise noted.)		Indicator	s for Problematic Hydric Soils ³ :
Histosol ((A1)		Sandy Gle	eyed Matrix (S4)		1 cm	Muck (A9) (LRR I, J)
Histic Epi	ipedon (A2)		Sandy Re	dox (S5)		Coas	t Prairie Redox (A16) (LRR F, G, H)
Black His	stic (A3)		Stripped N	fatrix (S6)		Dark	Surface (S7) (LRR G)
Hydroger	n Sulfide (A4)	=)	Loamy Mu	icky Mineral (F1)		High	Plains Depressions (F16)
1 cm Muc	ck (A9) (LRR F. G	-) H)	Loamy Gl	eyeu watrix (F2) Matrix (F3)		(L Rođu	KK H OUISIGE OF MLRA 72 & 73)
Depleted	Below Dark Surfac	e (A11)	Redox Da	rk Surface (F6)		Red P	Parent Material (TE2)
▲ Thick Dar	rk Surface (A12)		Depleted I	Dark Surface (F7)		Very	Shallow Dark Surface (TF12)
Sandy Mu	ucky Mineral (S1)	00// 55 - 10	Redox De	pressions (F8)		Other	(Explain in Remarks)
2.5 cm Muc	lucky Peat or Peat (S2) (LRR G, H)	High Plain	s Depressions (F1	6)	³ Indicators	s of hydrophytic vegetation and
0 0in Mbc	by real of real (S.			A 72 & 73 of LRR I	H)	wetlar	nd hydrology must be present,
Restrictive La	ayer (if present):					unies	s disturbed or problematic.
Туре:		_					
Depth (incl	hes):					Hydric Soi	Present? Yes L No
Remarks:							
YDROLOG	 GY					·	
Wetland Hyd	rology Indicators:				_		
Primary Indica	ators (minimum of o	ne required; ch	eck all that apply)			Second	any Indicators (minimum of two required)
Surface V	Nater (A1)		Salt Crust (B	11)			rface Soil Cracks (R6)
High Wate	er Table (A2)		Aquatic Inve	tebrates (B13)			arsely Vegetated Concave Surface (B8)
Saturation	n (A3)		Hydrogen Su	lfide Odor (C1)		Dra	ainage Patterns (B10)
🗶 Water Ma	arks (B1)		Dry-Season	Water Table (C2)		Ox	idized Rhizospheres on Living Roots (C3
Sediment	t Deposits (B2)		Oxidized Rhi	zospheres on Livin	ig Roots (C	3) (1	where tilled)
Drift Depo	osits (B3)		(where no	t tilled)		Cra	ayfish Burrows (C8)
							
Algal Mat	t or Crust (B4)		Presence of	Reduced Iron (C4)		Sa	turation Visible on Aerial Imagery (C9)
Algal Mat	t or Crust (B4) osits (B5) n Visible on Assist I	magang (DZ)	Presence of Thin Muck S	Reduced Iron (C4) urface (C7)		Sa Ge	turation Visible on Aerial Imagery (C9) comorphic Position (D2)
Algal Mat	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9)	magery (B7)	Presence of Thin Muck S Other (Expla	Reduced Iron (C4) urface (C7) in in Remarks)		Sa Ge FA	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5)
Algal Mat Iron Depo Inundation Water-Sta Field Observi	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations:	magery (B7)	Presence of Thin Muck S Other (Expla	Reduced Iron (C4) urface (C7) in in Remarks)		Sa Ge FA Fro	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observa	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y	magery (B7)	Presence of Thin Muck S Other (Expla	Reduced Iron (C4) urface (C7) in in Remarks) 		Sa Ge FA	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observa Surface Water Water Table F	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y	magery (B7) es No _ es No	 Presence of Thin Muck S Other (Expla Depth (inches) Depth (inches) 	Reduced Iron (C4) urface (C7) in in Remarks) es):	-	Sa Ge FA Fro	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observa Surface Water Water Table F Saturation Pre	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) rations: r Present? Present? Y esent? Y	magery (B7) es No _ es No _ es No _	Presence of Thin Muck S Other (Expla Other (Expla Depth (inchet x	Reduced Iron (C4) urface (C7) in in Remarks) es): es): es):	- - Notion	Sa Ge FA Fro	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observe Surface Water Water Table F Saturation Pre (includes capi	t or Crust (B4) osits (B5) in Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y illary fringe)	magery (B7) es No es No es No	Presence of Thin Muck S Other (Expla X Depth (inch X Depth (inch X Depth (inch)	Reduced Iron (C4) urface (C7) in in Remarks) es): es): es):	- Vetlar	Sa Ge FA Fro	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Iron Depo Water-Sta Field Observi Surface Water Water Table F Saturation Pre (Includes capil Describe Reco	t or Crust (B4) osits (B5) in Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y esent? Y illary fringe) orded Data (stream	magery (B7) es No es No es No gauge, monitor	 Presence of Thin Muck S Other (Expla Depth (incheta) Depth (incheta) Depth (incheta) Depth (incheta) Depth (incheta) 	Reduced Iron (C4) urface (C7) in in Remarks) es): es): es): otos, previous insp	- Wetlar ections), if	Sa Ge FA Fro nd Hydrolog available:	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observa Surface Water Water Table P Saturation Pre (Includes capit Describe Reco Remarks:	t or Crust (B4) osits (B5) in Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y esent? Y orded Data (stream	magery (B7) es No es No gauge, monitor	 Presence of Thin Muck S Other (Explain Depth (inchoine) Depth (inchoine) Depth (inchoine) 	Reduced Iron (C4) urface (C7) in in Remarks) es): es): ptos, previous insp	- Wetlar - Wetlar	Sa Ge FA Fro nd Hydrolog available:	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Field Observa Surface Water Water Table F Saturation Pre (includes capil Describe Reco	t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y esent? Y esent? Y illary fringe) orded Data (stream	magery (B7) es No es No gauge, monitor	Presence of Thin Muck S Other (Expla Other (Expla Depth (inchet x Depth (inchet x Depth (inchet ing well, aerial photon ing well photon ing wel	Reduced Iron (C4) urface (C7) in in Remarks) es): es): es): otos, previous insp	- Wetlar - Wetlar ections), if	Sa Ge FA Fro available:	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)
Algal Mat Iron Depo Inundation Water-Sta Surface Water Water Table F Saturation Pre (Includes capil Describe Reco Remarks:	t or Crust (B4) osits (B5) in Visible on Aerial I atined Leaves (B9) ations: r Present? Y Present? Y esent? Y esent? Y esent? Y orded Data (stream	magery (B7) es No es No gauge, monitor	Presence of Thin Muck S Other (Expla Depth (inche Depth (inche Depth (inche Depth (inche Depth (inche Depth (inche	Reduced Iron (C4) urface (C7) in in Remarks) es): es): es): otos, previous insp	- Wetlar ections), if	Sa Ge FA Fro available:	turation Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) ost-Heave Hummocks (D7) (LRR F)

WETLAND DETERMINATION DATA FORM -- Great Plains Region

Project/Site: Kenstone XC		(City/Cour	nty:	łK		Sampling Date: Sampling Date:
Applicant/Owner:						State: SD	_ Sampling Point:
Investigator(s):		:	Section,	Township,	, Ran	nge:	
Landform (hillslope, terrace, etc.):			Local rel	ief (conca	ive, c	onvex, none):	Slope (%):
Subregion (LRR):		Lat:				Long:	Datum:
Soil Map Unit Name:						NWI class	ification:
Are climatic / hydrologic conditions on the	site typical for this	time of yea	ar? Yes	N	1o	🗶 (If no, explain in	Remarks.)
Are Vegetation Y Soil Y, or Hyd	drology <u></u> si	gnificantly o	disturbed	? 4	۲e "۱	Normal Circumstances	s" present? Yes No 🗻
Are Vegetation N , Soil N , or Hyd	drology N n	aturally prol	blematic?	? (Ifnee	eded, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Atta	ch site map s	showing	sampli	ing poir	nt Ic	ocations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	×	ls	the Sam	pled.	Area	No K
Wetland Hydrology Present?	Yes No	·_ x			strain		
Remarks: - recent drought i - cattle grazing	n area reduced	veget	xt ion	- 8 -	d :	sturbed so	is + hydrolegy
VEGETATION – Use scientific na	ames of plant	ts.					
Tree Stratum (Plot size:	_)	Absolute <u>% Cover</u>	Domina Species	nt Indicat <u>? Statu</u> 	tor <u>s</u>	Dominance Test wo Number of Dominant That Are OBL, FACV (excluding FAC-): Total Number of Dom	vrksheet: t Species V, or FAC (A) minant trate:
4 Sapling/Shrub Stratum (Plot size:)		= Total C	Cover	 	Percent of Dominant That Are OBL, FACV	Species V, or FAC: (A/B)
23						Prevalence Index w Total % Cover o	rorksheet: if: Multiply by:
4.		<u> </u>			-	OBL species	x1=
5						FACW species	x2=
		<u></u>	= Total C	 Cover		FAC species	x 3 =
Herb Stratum (Plot size:)					FACU species	×4 =
1. Agropyron cristation		100	X		—	UPL species	×5 =
2		·			—	Column Totals:	(A) (B)
4			<u> </u>			Prevalence Ind	iex = B/A =O
5.					-	Hydrophytic Vegeta	ation Indicators:
6.					—	📕 1 - Rapid Test fo	or Hydrophytic Vegetation
7.	,				—	👥 2 - Dominance 1	Γest is >50%
8					-	3 - Prevalence li	ndex is ≤3.0 ¹
9						4 - Morphologica	al Adaptations ¹ (Provide supporting arks or on a separate sheet)
10						Problematic Hyd	drophytic Vegetation ¹ (Explain)
<u>Woody Vine Stratum</u> (Plot size:)	106	= Total C	Cover		¹ Indicators of hydric be present, unless d	soil and wetland hydrology must isturbed or problematic.
2% Bare Ground in Herb Stratum		·	= Total (Cover		Hydrophytic Vegetation Present?	Yes No _ X _
Remarks:						•	

SOIL

Profile Desc	ription: (Describ	e to the depth i	needed to	o docum	ent the l	ndicato	r or con	firm th	ne absen	ce of indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)	%	Color (m	Redox pist)	Feature %	s Type'	Loc	2	Texture	Remarks
0-15	- soil +	o. day _	to s	amp)	e d	ne_	to	dra	aght	conditions
									<u> </u>	
							_			
									_	
Type: C=Co	ncentration, D≍De	epletion, RM=Re	duced M	atrix, CS:	=Covere	d or Coa	ted San	d Grair	<u>1s. ²l</u>	Location: PL=Pore Lining, M=Matrix.
	ndicators: (Appi	ICADIE TO All LR	Rs, unles	ss otner	vise not	ea.)			Indicato	m Music (AQ) (LBB L. I)
Histoson	(AI) inedon (A2)			Sandy G Sandy R	edox (S5	aunx (54) i)				ast Prairie Redox (A16) (LRR F. G. H)
Black His	stic (A3)			Stripped	Matrix (S	., 36)			Dar	k Surface (S7) (LRR G)
Hydroge	n Sulfide (A4)			Loamy N	lucky Mi	neral (F1)		High	h Plains Depressions (F16)
Stratified	Layers (A5) (LRF	R F)		Loamy G	leyed M	atrix (F2))		((LRR H outside of MLRA 72 & 73)
1 cm Mu	ck (A9) (LRR F, G	, H)		Depleted	Matrix (F3)			Red	duced Vertic (F18)
Depleted	below Dark Surfa	ace (A11)		Redox D	ark Surfa	ace (F6)	7)		Red	a Parent Material (TF2)
Sandy M	luckv Mineral (S1)			Redox D	epressio	ns (F8)	()		Oth	er (Explain in Remarks)
2.5 cm M	lucky Peat or Pea	t (S2) (LRR G, I	H)	High Pla	ins Depr	essions ((F16)		³ Indicato	ors of hydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S3) (LRR F)		(MLF	RA 72 &	73 of LR	RH)		wetl	and hydrology must be present,
									unie	ess disturbed or problematic.
Restrictive	_ayer (if present)									
iype:										
Depui (inc			—						Hydric S	No K
Remarks:										
			_							
HYDROLO	GY				_	_				
Wetland Hy	drology Indicator	'S:							_	
Primary India	cators (minimum o	fone required; of	check all	that apply	()				<u>Seco</u>	ndary Indicators (minimum of two required)
Surface	Water (A1)		S	alt Crust	(B11)	(540)			\$	Surface Soil Cracks (B6)
High Wa	ater Table (A2)		A	quatic inv	/ertebrat	es (B13)				Sparsely Vegetated Concave Surface (B8)
Water M	lorke (B1)		H	yarogen : w Sooco	Suilide C	Table (C1)) ''')		L	Drainage Patterns (B10) Ovidized Bhizeenberge on Living Boote (C2
Sedimer	nt Deposits (B2)		0	ry-Seaso	hizoenh		iving R	note (C	···· `	(where filled)
Drift De	posits (B3)		_ `	(where r	not tilled)	_iving it	0013 (0	,o, (Cravfish Burrows (C8)
Algal Ma	at or Crust (B4)		P	resence	of Reduc	, ed Iron (C4)			Saturation Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		т	hin Muck	Surface	(C7)			(Geomorphic Position (D2)
Inundati	on Visible on Aeri	al Imagery (B7)	0	ther (Exp	olain in R	emarks)			I	FAC-Neutral Test (D5)
Water-S	tained Leaves (B))							· I	Frost-Heave Hummocks (D7) (LRR F)
Field Obser	vations:				-	_				
Surface Wat	er Present?	Yes No	ا _ک_ ا	Depth (in	ches):					
Water Table	Present?	Yes No	ا <u>ک</u> ا	Depth (in	ches):					
Saturation P (includes ca	resent? pillary fringe)	Yes No		Depth (in	ches):			Wetla	nd Hydro	logy Present? Yes No
Describe Re	corded Data (stre	am gauge, mon	toring we	II, aerial j	photos, p	previous	inspecti	ons), lf	available	2:
Remarks:										