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Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDYA003	9/15/2006	421.8	422.1	Yankton	SD	Site Visit	High	Yes, Dakota skipper

Site Summary. This grassland is at the Keystone pipeline James River crossing. Although this area has ravines filled with cedar (*Juniperus scopulorum*) and a mix of less common broadleaf trees such as box elder (*Acer negundo*) and hackberry (*Celtis occidentalis*), there are ridges between these wooded ravines that have high quality, well protected native grassland. Grasses on these ridges include prairie dropseed (*Sporobolus heterolepis*), Indian grass (*Sorghastrum nutans*), side-oats grama and blue grama (*Bouteloua gracilis*). Native forbs include black Sampson (*Echinacea angustifolia*), cusp blazing star (*Liatris mucronata*), compass plant (*Silphium laciniatum*), and hoary verbain (*Verbena stricta*). Although this area is moderately grazed and has a few exotic weeds such as burdock (*Arctium minus*), it is quality habitat for the Dakota skipper.



Feature TDH1SDYA003: View to the south of a ridge of native prairie.

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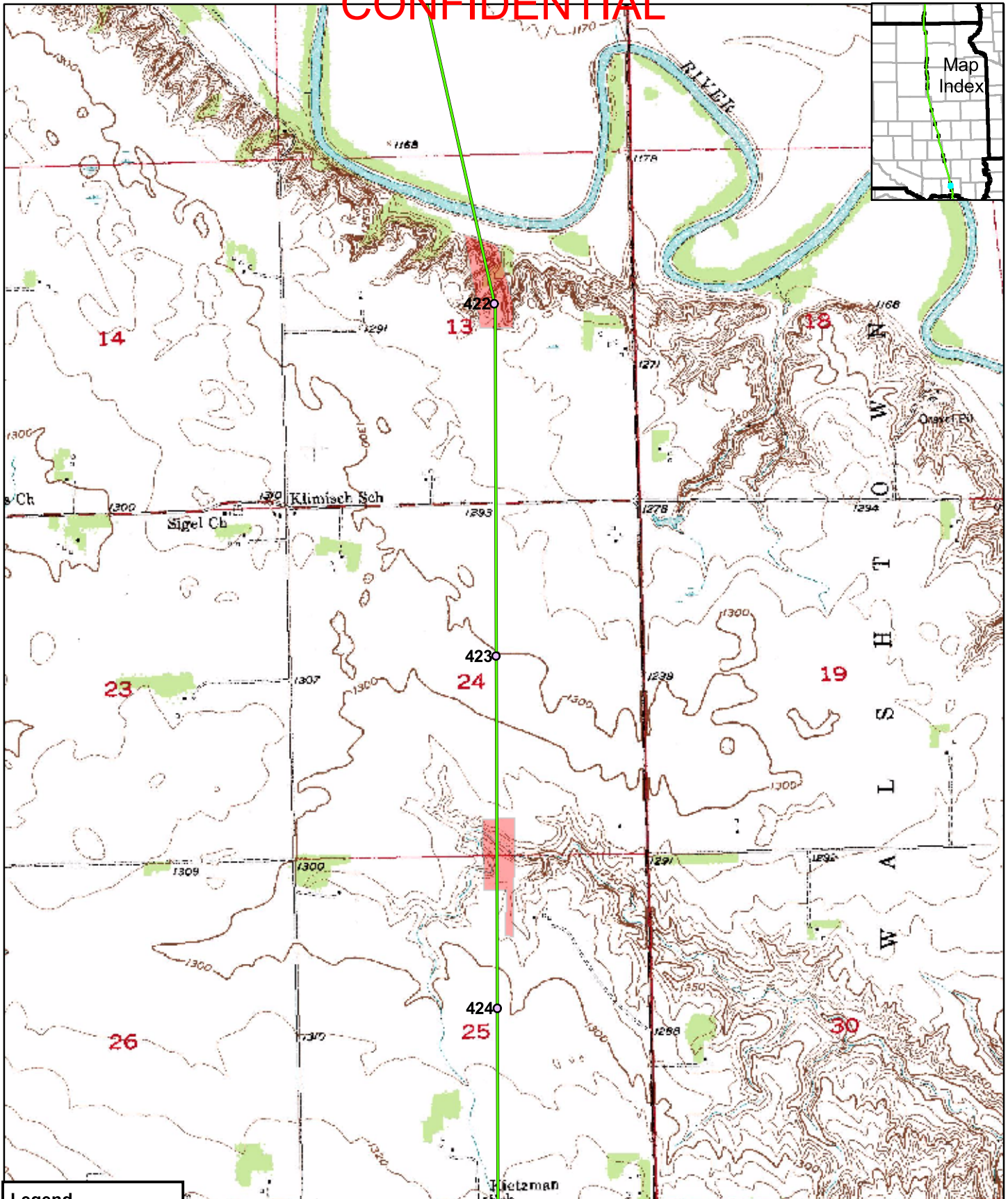


Feature TDH1SDYA003: A ridge of native prairie with trees in the ravines near the James River.








Feature TDH1SDYA003: A close-up of ridge vegetation: black Sampson (*Echinacea angustifolia*) to the right, and a purple cusp blazing star (*Liatris mucronata*) in the center.

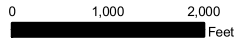
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Legend

-  Mileposts
-  Proposed Centerline
-  Surveyed Grasslands
-  State Boundary
-  County Boundary

Keystone Pipeline Project



Map 20 of 21
Surveyed
Grasslands

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Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDYA002	9/15/2006	423.5	423.8	Yankton	SD	Site Visit	Medium	No

Site Summary: The lowland swales are dominated by smooth brome (*Bromus inermis*) with very few native plants. The slopes of these hills have erosion contours due to heavy grazing. The upland area near center line is heavily grazed (few native forbs). The ridges along the construction corridor are dominated by blue grama (*Boutoula gracilis*) with patches of side-oats grama (*Boutoula curtipendula*), and still contain native prairie with few exotic plants. This site would become a higher quality prairie if the grazing intensity were lowered. Due to the absence of native forbs (heavy grazing), it is currently not a high quality site.



Feature TDH1SDYA002: Heavily trampled water tank at center line, along the ridge.