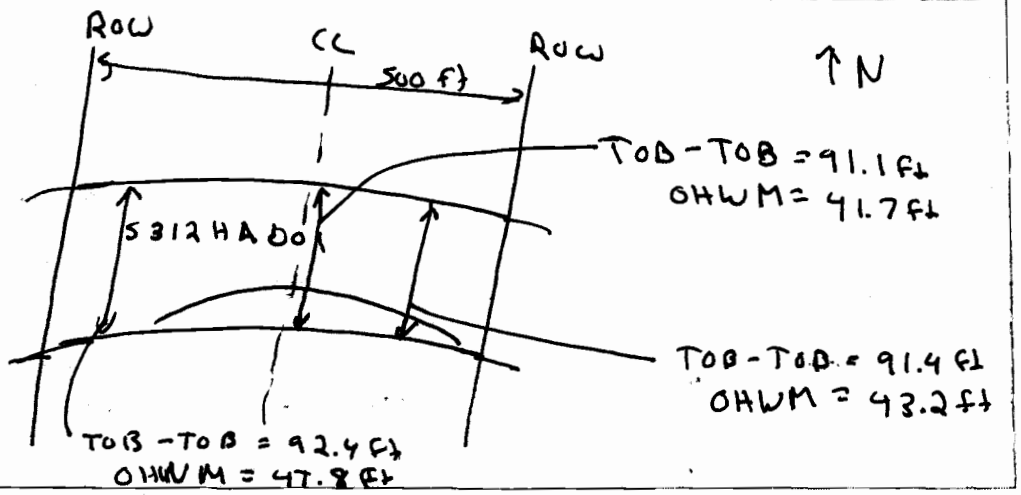
Waterbody Data Form

☒ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Centerline ID:	Project Designated Name:	
S312HA001	Little Missouri River	
Date: 10-3-12	Client/Project Name: Keystone XL	Milepost Enter/Exit: 295.00
Team: 312	State/County: SD / HA	Quad Name:
Logbook No.: 1	Logbook Page No.:	Tract No.: HA 00390.000 00410.000

Drawing (Please provide orientation arrow, all features identified, location to centerline, etc.)



Waterbody Type:	☐ Lake	☐ Pond	☐ Borrow Pit	☒ Stream	☐ Ag. Ditch	☐ Other				
Stream Flow:	☐ Fast	☒ Moderate	☐ Slow	☐ Very Slow	☐ None					
Flow Type:	☒ Perennial (Flows year round)		☐ Intermittent (Flows <3 month		☐ None					
	☐ Seasonal (Continuous flow ≥ 3 months)		☐ Ephemeral (Flows only in response to rainfall)							
Direction of Flow:	☐ N	☐ NE	☐ E	☐ SE	☐ S	☐ SW	☒ W	☐ NW	☐ No Flow	
OHWM Width (ft.):	at CL = 41.7 ft									
Sinuosity:	☐ Braided	☒ Meandering	☐ Straight	☐ N/A						
Stream Width (ft.):	at CL TOB-TOB = 91.1 ft		**Water Surface (At Crossing Location)**	40 ft						
Stream Depth (ft.):	☐ 0	☒ 1-3	☐ 3-6	☐ 6-12	☐ 12-18	☐ 18-24	☐ 24-36	☐ 36-48	☐ 48-60	☐ 60+
OHWM Indicators:	Bare banks; beat veg									
Bank Height (ft.): (Looking Downstream)	Left:	☐ 0-2	☒ 2-4	☐ 4-6	☐ 6-8	☐ 8+				
	Right:	☐ 0-2	☒ 2-4	☐ 4-6	☐ 6-8	☐ 8+				
Bank Slope: (Looking Downstream)	Left:	☐ 4:1	☐ 3:1	☐ 2:1	☐ 1:1	☒ Vertical				
	Right:	☐ 4:1	☒ 3:1	☐ 2:1	☐ 1:1	☐ Vertical				

Qualitative Attributes

Water Appearance:

- [ ] Clear
- [x] Slightly Turbid
- [ ] No Flow
- [ ] Turbid
- [ ] Very Turbid
- [ ] Other:
- [ ] Sheen on Surfac
- [ ] Greenish Color
- [ ] Floating Algalmats
- [ ] Obvious Surface Scum

Stream Substrate %:

Aquatic Habitats:

- [ ] Sand Bar
- [ ] Gravel Bar
- [ ] Mud Bar
- [ ] Undercut Banks
- [ ] Gravel Riffle
- [ ] Deep Pools
- [ ] Bank Root Systems
- [ ] Overhanging Trees/Shrubs
- [ ] In-stream Emergent Plant % Cover:
- [ ] In-stream Submerged Plant % Cover:
- [ ] Fringing Wetlands Characteristics:
- [ ] None

Aquatic Organisms Observed:

Riparian Zone:

Width of Natural Vegetation Zone from Edge of Active Channel out to Flood Plain (ft): Left - 50+ Right - 50+

Vegetative Layers: [x] Herbs [ ] Shrubs [ ] Trees [ ] Multiple

Significant Bare Areas Within Riparian Zone [ ] Yes [x] No [ ] Unknown

Evidence Of Non-Buffered Concentrated Flows: [ ] Yes [x] No [ ] Unknown

Tributary Condition: [x] Natural [ ] Artificial (Man-Made) [ ] Manipulated

Channel Condition:

- [ ] Channelization/Braiding
- [ ] Dikes/Berms
- [ ] Unnatural Straightening
- [ ] Excessive Bank Erosion
- [ ] Downcutting
- [ ] N/A

Disturbances:

- [x] Livestock Access to Riparian Zone
- [x] Manure In Stream or On Banks
- [ ] Waste Discharge Pipes Present
- [ ] Other:

Habitat Characteristics, Aquatic, and Terrestrial Diversity Description:

Habitat ID Number:

range land

Comments:

gravel bar / gravel deposit along RDB

Stream Quality: [ ] High [x] Moderate [ ] Low

-cattle access to stream