

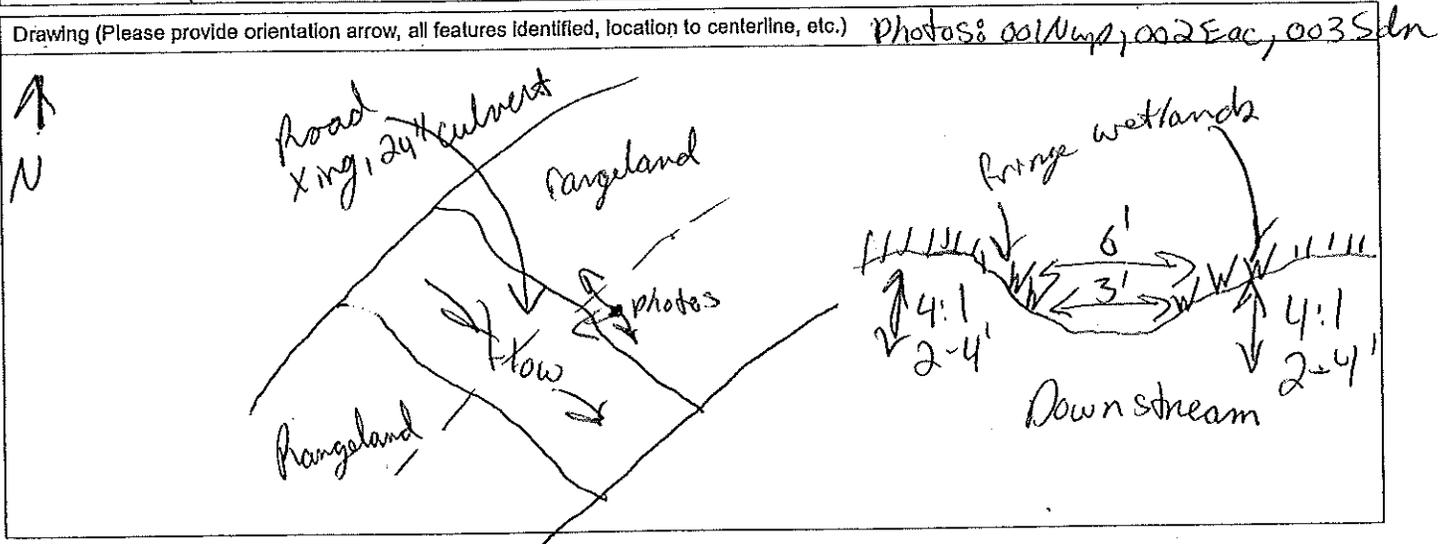
Waterbody Data Form S109 AA003

Diggins rat creek

CAR 129

Centerline  Re-Route  Access Road  Ancillary Facility  Transmission Line  Other

Centerline ID: 3/26/10		Project Designated Name: Keystone XL - Phase IX	
Date: 8/5/10	Client/Project Name: TransCanada - Trow	Milepost Enter/Exit: MP ≈ 1.3	
Team: 15/109	State/County: <del>NE</del> SD - Harding	Quad Name: NA	
Logbook No.: 1	Logbook Page No.: -	Tract No.: ML-SD-AA-090	



Waterbody Type:	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other
Stream Flow:	<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Very Slow <input checked="" type="checkbox"/> None
Flow Type:	<input type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Intermittent (Flows <3 month) <input type="checkbox"/> None <input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input checked="" type="checkbox"/> Ephemeral (Flows only in response to rainfall)
Direction of Flow:	<input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/> E <input type="checkbox"/> SE <input type="checkbox"/> S <input type="checkbox"/> SW <input type="checkbox"/> W <input type="checkbox"/> NW <input checked="" type="checkbox"/> No Flow
OHWM Width (ft.):	3' <del>6' W</del>
Sinuosity:	<input type="checkbox"/> Braided <input checked="" type="checkbox"/> Meandering <input type="checkbox"/> Straight <input type="checkbox"/> N/A
Stream Width (ft.):	Top ≈ 6' <span style="float: right;">Water Surface (At Crossing Location)</span>
Stream Depth (ft.):	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1-3 <input type="checkbox"/> 3-6 <input type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+
OHWM Indicators:	Bank neg sediment sorting
Bank Height (ft.): (Looking Downstream)	Left: <input type="checkbox"/> 0-2 <input checked="" type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+ Right: <input type="checkbox"/> 0-2 <input checked="" type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+
Bank Slope: (Looking Downstream)	Left: <input checked="" type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical Right: <input checked="" type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical

S109 HA003

Qualitative Attributes

Water Appearance:  Clear  Turbid  Sheen on Surface  Floating Algal Mats  
 Slightly Turbid  Very Turbid  Greenish Color  Obvious Surface Scum  
 No Flow  Other:

Stream Substrate %: *Clay - Silty*

Aquatic Habitats:  Sand Bar  Gravel Riffle  In-stream Emergent Plant % Cover: *80%*  
 Gravel Bar  Deep Pools  In-stream Submerged Plant % Cover:  
 Mud Bar  Bank Root Systems  Fringing Wetlands Characteristics: *vegetation - juncus, carex*  
 Undercut Banks  Overhanging Trees/Shrubs  None

Aquatic Organisms Observed: *None*

Riparian Zone:  
Width of Natural Vegetation Zone from Edge of Active Channel out to Flood Plain (ft): Left - *10'* Right - *10'*  
Vegetative Layers:  Herbs  Shrubs  Trees  Multiple  
Significant Bare Areas Within Riparian Zone  Yes  No  Unknown  
Evidence Of Non-Buffered Concentrated Flows:  Yes  No  Unknown

Tributary Condition:  Natural  Artificial (Man-Made)  Manipulated *Road x-ing, culvert*

Channel Condition:  Channelization/Braiding  Unnatural Straightening  Downcutting  
 Dikes/Berms *w/ downstream*  Excessive Bank Erosion  N/A

Disturbances:  Livestock Access to Riparian Zone  Manure In Stream or On Banks  
 Waste Discharge Pipes Present  
 Other:

Habitat Characteristics, Aquatic, and Terrestrial Diversity Description:  
Habitat ID Number: *NA*

Comments: *Ephemeral stream w/ wetland characteristics. Surrounded by rangeland, creek crossing/culvert.*

Stream Quality:  High  Moderate  Low