

# WATERBODY DATA FORM

Centerline  Re-Route  Access Road  Ancillary Facility  Other:

**Feature ID #: S7AME001**

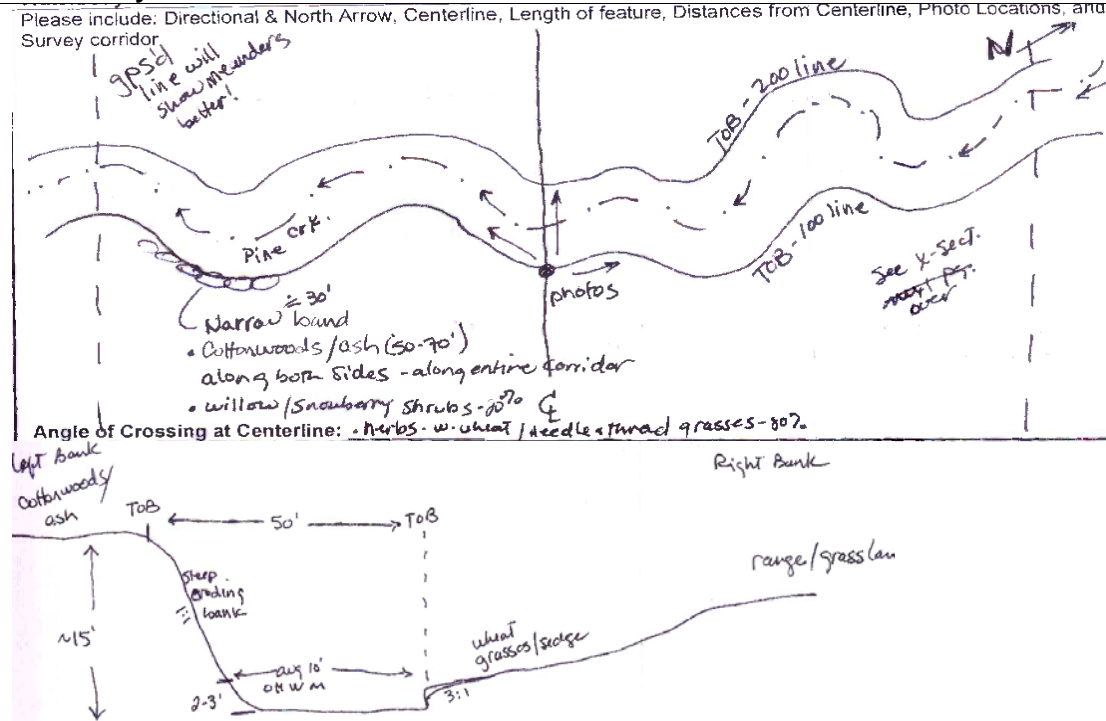
Stream/Waterbody Name (if known): PINE CREEK

**Associated Wetland ID #: H7AME002**

<b>Date:</b> 6/24/08	<b>Project Name &amp; No.:</b> Keystone XL-10623-007-803A	<b>Milepost:</b> 383.3
<b>Investigators:</b> 7A NOVAK	<b>State/County:</b> SD/ ME	<b>Quad Name:</b> OPAL WEST
<b>Logbook No.:</b> 7A-1	<b>Logbook Page No.:</b> 98	<b>Tract No.:</b> ML-SD-ME-00260.000
		<b>Picture No.:</b> S7AME001_N,W,S

**PHYSICAL ATTRIBUTES**

**Waterbody Sketch Plan**



<b>Waterbody Type</b>	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other:
<b>Stream Flow</b>	<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input checked="" type="checkbox"/> Very Slow <input type="checkbox"/> None
<b>Subsurface Flow?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown
<b>Flow type</b>	<input checked="" type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Seasonal (Continuous flow $\geq 3$ months) <input type="checkbox"/> Intermittent (Flows < 3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)
<b>Direction of Flow where it crosses CL:</b>	S (N, NE, E, SE, S, SW, W, NW)
<b>OHWM Width (ft.):</b>	8-12' AVG. = 10'
<b>Sinuosity</b>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering
<b>Stream Width (ft.)</b>	Top of Bank (at crossing location): 50'      Water Surface (at crossing location): 10'
<b>Stream Depth (in.)</b>	<input type="checkbox"/> 0-3 <input type="checkbox"/> 3-6 <input type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input checked="" type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+
<b>OHWM Indicator</b>	<input checked="" type="checkbox"/> Clear natural line on bank <input type="checkbox"/> Wrack line <input type="checkbox"/> Shelving <input type="checkbox"/> Scour <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Bent, matted or missing vegetation <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Water staining <input type="checkbox"/> Soil character changes <input type="checkbox"/> Sediment deposition <input type="checkbox"/> Sediment sorting <input type="checkbox"/> Litter and debris <input type="checkbox"/> Leaf litter disturbed <input type="checkbox"/> Other:
<b>Bank Height (ft.) (looking downstream)</b>	Left: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input checked="" type="checkbox"/> 8+ Right: <input checked="" type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+
<b>Bank Slope (looking downstream)</b>	Left: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input checked="" type="checkbox"/> 1:1 <input type="checkbox"/> Vertical Right: <input type="checkbox"/> 4:1 <input checked="" type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical

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**QUALITATIVE ATTRIBUTES**

<b>Water Appearance (check all that apply)</b>	Clear <input type="checkbox"/> Slightly Turbid <input type="checkbox"/> Other:	Turbid <input checked="" type="checkbox"/> Very Turbid <input type="checkbox"/>	Sheen on surface <input type="checkbox"/> Greenish color <input type="checkbox"/>	Floating algal mats <input type="checkbox"/> Obvious surface scum <input type="checkbox"/>	Water Color: DARK TEA
<b>Stream Substrate %</b>	Silts 30% Concrete Other:	Cobbles Muck Explain:	Bedrock Vegetation:	Sands 60% Gravel 10%	
<b>Aquatic Habitats (check all that apply)</b>	Sand Bar <input checked="" type="checkbox"/> Gravel Bar <input type="checkbox"/> Mud Bar <input type="checkbox"/> Undercut Banks <input checked="" type="checkbox"/>	Gravel Riffles <input type="checkbox"/> Deep Pools <input checked="" type="checkbox"/> Bank root systems <input checked="" type="checkbox"/> Overhanging trees/shrubs <input checked="" type="checkbox"/>	In-stream emergent plants: <input type="checkbox"/> In-stream submerged plants: <input type="checkbox"/> Fringing Wetlands: <input type="checkbox"/>		
<b>Aquatic Organisms Observed (check all that apply)</b>	Waterfowl <input type="checkbox"/> Snakes <input checked="" type="checkbox"/>  Invertebrates: CAN'T SEE	Fish (adult) <input type="checkbox"/> Fish (juvenile) <input type="checkbox"/>	Turtles <input type="checkbox"/> Frogs <input checked="" type="checkbox"/> SAW A N. SPOTTED LEOPARD FROG	Other:	
<b>Riparian Zone</b>	Width of natural vegetation zone from edge of active channel out onto flood plain (FT): Circle vegetative layers: trees <input checked="" type="checkbox"/> shrubs <input checked="" type="checkbox"/> herbs <input checked="" type="checkbox"/> <input type="checkbox"/> Significant bare areas within riparian zone <input type="checkbox"/> Evidence of non-buffered concentrated flows				
<b>Tributary is</b>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input type="checkbox"/> Manipulated				
<b>Channel Condition:</b>	Channelization or Braiding <input type="checkbox"/>	Unnatural straightening <input type="checkbox"/>	Downcutting <input type="checkbox"/>	Dikes/Berms <input type="checkbox"/> Bank erosion <input checked="" type="checkbox"/>	Other
<b>Disturbances</b>	Livestock access to riparian zone <input type="checkbox"/> Waste discharge pipes present <input type="checkbox"/>		Manure in stream or on banks <input type="checkbox"/> Other: NO SIGN OF CATTLE		

Describe Habitat Characteristics, Aquatic & Terrestrial Diversity: HIGH TERRESTRIAL SPP. DIVERSITY & QUALITY HABITAT NO OBSERVABLE AQUATIC INVERTS OR FISH SPP.	Habitat ID No.:
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Comments (e.g. pipeline crossing angle, construction constraints, erosion potential, existing disturbances, and meanders)  CROSSES @ STEEP ERODING BANK
<b>STREAM QUALITY</b> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low <input type="checkbox"/>