Use Attainability Analysis

for

WBID 0883 Gabriel Creek

Submitted by
Tetra Tech, Inc

To
Missouri Department of Natural Resources
Water Protection Program

RECEIVED
2:47

Field Data Sheets for Recreational Use Stream Surveys

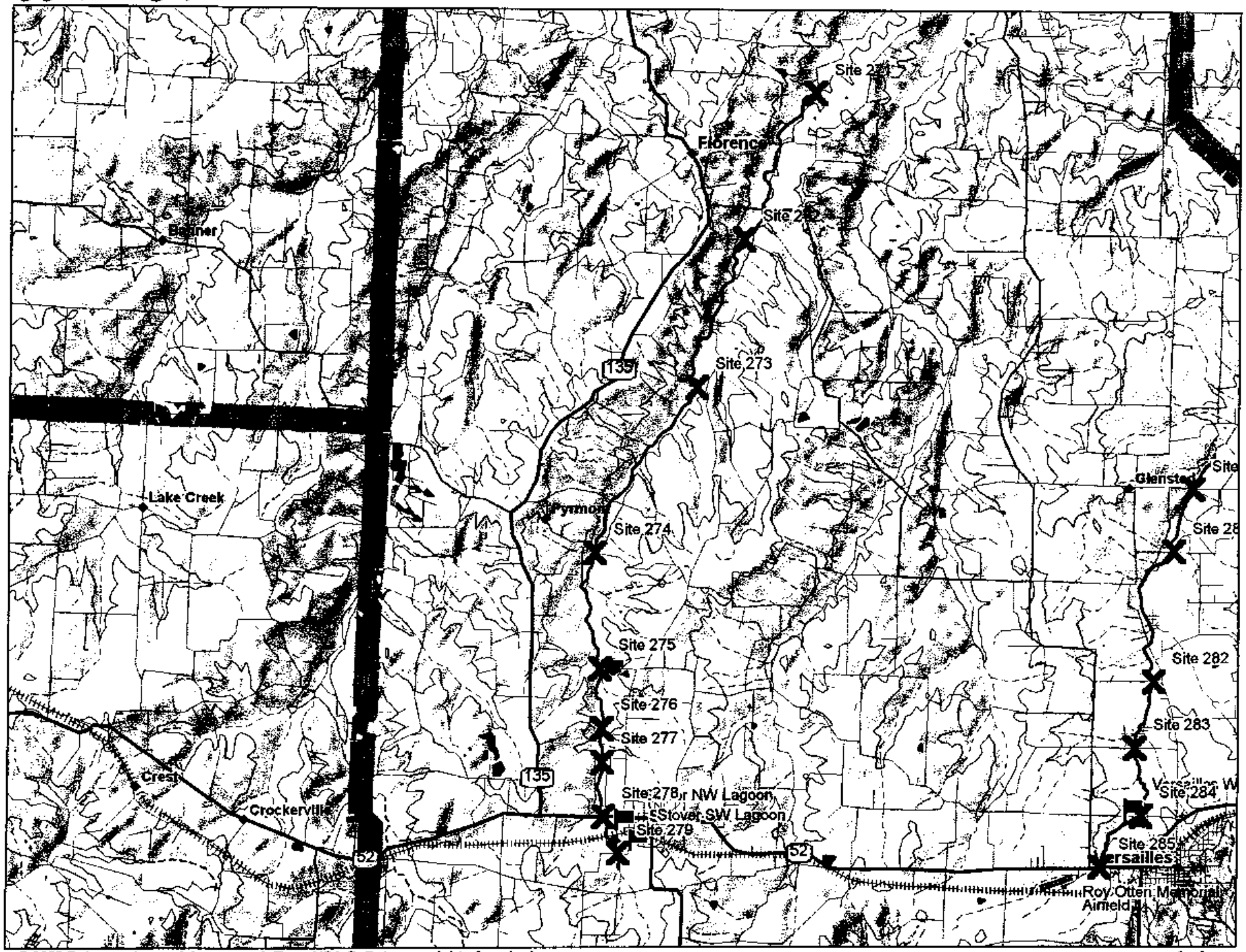
Data Sheet A - Water Body Identification

Water Body Name: (from USGS 7.5' quad)	Gabriel Creek
8-digit HUC:	10300103
Missouri WBID #:	0883
County:	Morgan
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd)	38.43493; 92.99856
Downstream Coordinates: (UGS 84, ddd.ddddd)	38.59132; 92.95408
Discharger Facility Name(s):	Lagoon
Discharger Permit Number(s):	
Number of Sites Evaluated:	9
Name of Surveyor and Telephone Number:	DB, CG 410-356-8993
Organization:	Tetra Tech, Inc. Baltimore Md.
Position:	Scientists

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/7/05

Gabriel Cr.



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Scale: 1 : 125,000 Map Rotation: 0° Magnetic Declination: 2.4°E

1 mi

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

*Original site was not at a bridge crossing therefore it was relocated to:

Missouri WBID #: 0883 (Site ID-271)		Site Location Description: *Florence Terrace at bridge crossing
Site GPS Coordinates: 38.59132; 92.95408		
Date & Time: 07 July 2005; 9:38am		Facility Name: Lagoon
Personnel: DB, CG		Permit Number:
Current Weather Conditions: Clear, sunny		Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2192	Downstream: 2193	Other:

memory card B2

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two – Data Sheet B for WBID # 0883 : (site ID - 271)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft): CG 7-7-05
☒ Pool	Width (~~ft~~): 8m	Length (~~ft~~): 20m	Avg. Depth (~~ft~~): 0.3	Max. Depth (ft): ~~0~~. 1.6m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~):	Length (ft): 20m	Avg. Depth (~~ft~~): 0.5m	Max. Depth (~~ft~~): 0.9m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

50 % Cobble	50 % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

small amounts of algae in stream

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☒ Oil sheen	☐ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/7/05

Organization: Tetra Tech, INC **Position:** scientist

QC Check: CG

0883_271 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID-272)		Site Location Description: Chester drive at bridge crossing
Site GPS Coordinates: 38.56973; 92.96420		
Date & Time: 07 July 2005; 9:23am		Facility Name: Lagoon
Personnel: DB, CG		Permit Number:
Current Weather Conditions: Clear, Sunny		Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2190	Downstream: 2189	Other: 2191

memory card B2

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☒ Other: Fire works beside stream 2191				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883 ; (site ID - 272

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 5m	Length (ft): 20m	Avg. Depth (ft): 0.4m	Max. Depth (ft): 0.5m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 12m	Length (ft): 20m	Avg. Depth (ft): 0.5m	Max. Depth (ft): 0.7m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

% Cobble	20 % Gravel	20 % Sand	% Silt	% Mud/Clay	60 % Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Aquatic vegetation in upstream photo (2190)
Some algal growth in stream.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: _____ **Date:** 7/7/05

Organization: Tetra Tech, INC **Position:** Scientist

QC Check: CG

0883_272 DS

0883_272 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID -273)	Site Location Description: Rattlesnake Rd. at bridge crossing
Site GPS Coordinates: 38.53761 ; 92.97776	
Date & Time: 07 July 2005 ; 9:10 am	Facility Name: Lagoon
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Clear, sunny	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2187 Downstream: 2188	Other:

Uses Observed*: memory card B2

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0983 : (site ID-273)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 3m	Length (ft): 8m	Avg. Depth (ft): 0.2m	Max. Depth (ft): 0.3m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Flow	Present? ☐ Yes ☐ No		Estimated (ft^3/sec):	

DRY * No water in nearby vicinity

Substrate*: (These values should add up to 100%.)

50 % Cobble	50 % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

N/A

Water Characteristics*: (Mark all that apply.) DOWN STREAM dry, water characteristics for US pool.

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
* Color:	☐ Clear	☐ Green	☒ Gray Dark	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

* pool nearby was clear.

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/7/05

Organization: Tetra Tech, INC **Position:** Scientist

QC Check: CG

0883_273 DS

0883_273 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID-274)	Site Location Description: Pyrmont Rd at bridge crossing
Site GPS Coordinates: 38.50119; 93.00683	
Date & Time: 05 July 2005; 4:10 pm	Facility Name: Lagoon
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, breezy	Weather Conditions for Past 7 days: Sunny, hot, rainy
Photo Ids: Upstream: 2152 Downstream: 2151	Other: memory card A

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883: (site ID-274)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 10m	Length (ft): 10m	Avg. Depth (ft): 0.25m	Max. Depth (ft): 0.35m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 15m	Length (ft): 10m	Avg. Depth (ft): 0.4m	Max. Depth (ft): 0.75m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

10 % Cobble	90 % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Algal growth in stream

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☐ Oil	☒ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/5/05

Organization: Scient Ultra Tech, INC CG **Position:** Scientist

QC Checks CG

0883_274 DS

0883_274 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID-275)		Site Location Description: ~150m upstream of site ID - 274
Site GPS Coordinates: 38.49963; 93.00645		
Date & Time: 05 July 2005; 4:19pm		Facility Name: Lagoon
Personnel: DB, CG		Permit Number:
Current Weather Conditions: sunny, breezy		Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2154	Downstream: 2153	Other:

Uses Observed*: memory card A

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

CG 7-5-05

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883 : (site ID - 275)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 5m	Length (ft): 10m	Avg. Depth (ft): 0.25m	Max. Depth (ft): 0.35m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 5m	Length (ft): 10m	Avg. Depth (ft): 0.1m	Max. Depth (ft): 0.15m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

10 % Cobble	90 % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Large amounts of algal in stream.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☐ Oil	☒ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/5/05

Organization: Ultra Tech, INC **Position:** Scientist

QC Check: CG

0883_275 DS

0883_275 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID-276)	Site Location Description: ~150m upstream from site ID275
Site GPS Coordinates: 38.49801; 93.00709	
Date & Time: 05 July 2005; 4:26pm	Facility Name: Lagoon
Personnel: DB, CG	Permit Number:
Current Weather Conditions: sunny, breezy	Weather Conditions for Past 7 days: hot, humid, dry, rainy
Photo Ids: Upstream: 2156 Downstream: 2155	Other:

memory card A

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883 : (site ID - 276)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~): 3m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.2m	Max. Depth (~~ft~~): 0.3m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~): 4m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.1m	Max. Depth (~~ft~~): 0.15m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

5 % Cobble	95 % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

N/A

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: _____ **Date:** 7/5/05

Organization: Tetra Tech, INC **Position:** Scientist

QC Check: CG

0883_276 DS

0883_276 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (site ID-277)		Site Location Description: ~150 m upstream of site ID-276
Site GPS Coordinates: 38.49690; 93.00758		
Date & Time: 05 July 2005; 4:32 pm		Facility Name: Lagoon
Personnel: DB, CG		Permit Number:
Current Weather Conditions: Sunny, breezy		Weather Conditions for Past 7 days: Hot, humid, sunny, rainy
Photo Ids: Upstream: 2159	Downstream: 2160	Other: memory card A-

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Page Two – Data Sheet B for WBID # 0983 : (Site ID - 277)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~): 8m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.4m	Max. Depth (~~ft~~): 0.55m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~): 9m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.4m	Max. Depth (~~ft~~): 0.95m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

10 % Cobble	85 % Gravel	% Sand	% Silt	% Mud/Clay	5 % Bedrock	

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Some algal growth in stream.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☒ Oil sheen	☒ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/5/05

Organization: Tetra Tech, INC **Position:** Scientist

QC check: CG

0883_277 DS

0883_277 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (SITE ID - 278)	Site Location Description: Hwy 52 at bridge crossing
Site GPS Coordinates: 38.44316; 93.00221	
Date & Time: 05 July 2005; 3:41 pm	Facility Name: Lagoon
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, breezy	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2149 Downstream: 2150	Other: memory card A-

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883: (site ID-278)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 6m	Length (ft): 20m	Avg. Depth (ft): 0.3m	Max. Depth (ft): 0.4m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (ft): 6m	Length (ft): 20m	Avg. Depth (ft): 0.4m	Max. Depth (ft): 0.5m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

5 % Cobble	90 % Gravel	% Sand	% Silt	% Mud/Clay	5 % Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Large amounts of algae in stream.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color: CG 7/5/05	☒ Clear	☐ Green	☒ Grayish	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☐ Oil	☒ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/5/05

Organization: Tetra Tech, INC **Position:** Scientist

QC Check: CG

0883_278 DS

0883_278 US

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(A separate data sheet must be completed for each site)

Missouri WBID #: 0883 (Site ID-279)		Site Location Description: Walnut Rd. at bridge crossing	
Site GPS Coordinates: 38.43493; 92.99856			
Date & Time: 05 July 2005; 3:26 pm		Facility Name: Lagoon	
Personnel: DB, CG		Permit Number:	
Current Weather Conditions: partly cloudy, breezy		Weather Conditions for Past 7 days: Hot, humid, dry, rainy	
Photo Ids: Upstream: 2147	Downstream: 2148	Other: 2146	

memory card A

Uses Observed*:

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☐ Other:	

Evidence of Human Use*:

2146

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☒ Livestock Watering	☐ RV / ATV Tracks
☐ Rope swings	☐ Camping Sites	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle
☐ Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Page Two – Data Sheet B for WBID # 0883 :(site ID- 279)

Stream Morphology:

Upstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☒ Pool	Width (~~ft~~): 3m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.15m	Max. Depth (~~ft~~): 0.25m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): ~~non-measur~~ CG 7.5.05 non-measurable	

Downstream View Physical Dimensions:

☐ Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
☐ Pool	Width (~~ft~~): 5m	Length (~~ft~~): 10m	Avg. Depth (~~ft~~): 0.15m	Max. Depth (~~ft~~): 0.25m
☒ Flow	Present? ☐ Yes ☒ No		Estimated (ft^3/sec): non-measurable	

Substrate*: (These values should add up to 100%.)

20 % Cobble	20 % Gravel	% Sand	% Silt	% Mud/Clay	60 % Bedrock

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

Algal growth in stream.

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☒ Other: gravel
Surface Deposit:	☒ Oil (sheen)	☐ Scum	☐ Foam	☐ None	☐ Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____ **Date:** 7/5/05

Organization: Ultra Tech, INC **Position:** Scientist

QC Check: CG

0883_279 DS

0883_279 US

0883_279 Livestock Watering